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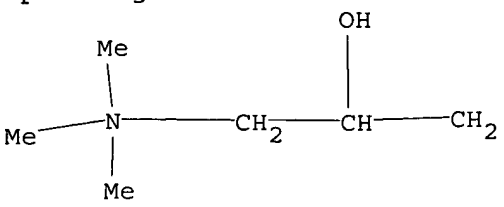
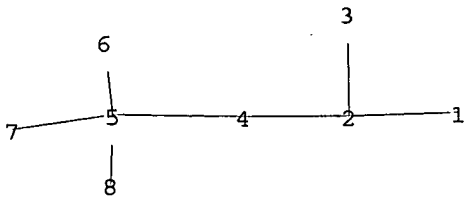
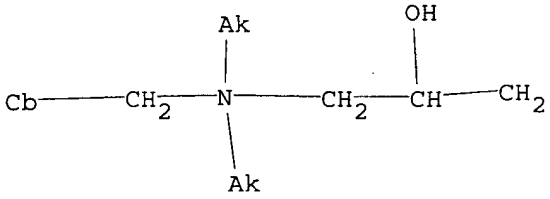


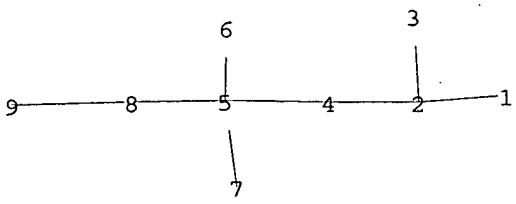


chain nodes :
1 2 3 4 5 6 7 8
chain bonds :
1-2 2-3 2-4 4-5 5-6 5-7 5-8
exact/norm bonds :
2-3
exact bonds :
1-2 2-4 4-5 5-6 5-7 5-8

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS

Uploading l4.str

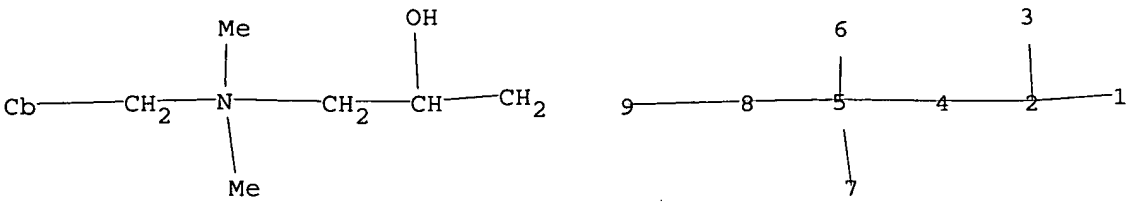




chain nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
1-2 2-3 2-4 4-5 5-6 5-7 5-8 8-9
exact/norm bonds :
2-3 5-6 5-7
exact bonds :
1-2 2-4 4-5 5-8 8-9

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:Atom
Element Count :
Node 9: Limited
C,C6

Uploading l5.str



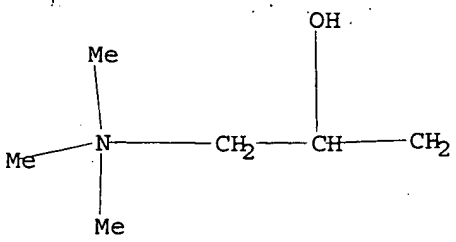
chain nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
1-2 2-3 2-4 4-5 5-6 5-7 5-8 8-9
exact/norm bonds :
2-3
exact bonds :
1-2 2-4 4-5 5-6 5-7 5-8 8-9

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:Atom
Element Count :
Node 9: Limited
C,C6

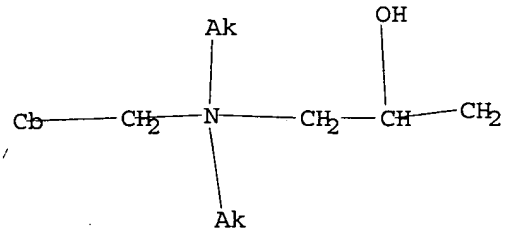
=> d que l66
L11 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2003-676176/AP
L12 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2002-415184P/PRN
L13 1 SEA FILE=HCAPLUS ABB=ON PLU=ON (L11 OR L12)
L61 11 SEA FILE=HCAPLUS ABB=ON PLU=ON ("SOLHAGE F"/AU OR "SOLHAGE FREDRIK"/AU)
L62 475 SEA FILE=HCAPLUS ABB=ON PLU=ON ("NILSSON P"/AU OR "NILSSON P O"/AU OR "NILSSON PER"/AU OR "NILSSON PER O"/AU OR "NILSSON PER OLA"/AU)
L63 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L61 AND L62
L64 2 SEA FILE=HCAPLUS ABB=ON PLU=ON (L61 OR L62) AND (CATION?(L)?SACCHARID?)
L65 3 SEA FILE=HCAPLUS ABB=ON PLU=ON (L63 OR L64)
L66 3 SEA FILE=HCAPLUS ABB=ON PLU=ON (L65 OR L13)

=> d que l72
L67 19 SEA SOLHAGE F?/AU
L68 2729 SEA NILSSON P?/AU
L69 5 SEA L67 AND L68
L70 9 SEA (L67 OR L68) AND (CATION?(L) ?SACCHARID?)
L71 6 SEA (L67 OR L68) AND (CATION?(L) POLYSACCHARID?)
L72 10 SEA (L69 OR L70 OR L71)

=> d que l24
L3 STR



Structure attributes must be viewed using STN Express query preparation.
L7 STR



Structure attributes must be viewed using STN Express query preparation.

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L9          3024 SEA FILE=REGISTRY SSS FUL L3
L10          500 SEA FILE=REGISTRY SSS FUL L7
L11            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2003-676176/AP
L12            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  US2002-415184P/PRN
L13            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L11 OR L12)
L14            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  (679828-86-5/BI OR 679828-88-
                  7/BI OR 9000-30-0/BI OR 9005-25-8/BI)
L15            4 SEA FILE=REGISTRY ABB=ON  PLU=ON  L9 AND L10
L16            1 SEA FILE=REGISTRY ABB=ON  PLU=ON  L14 AND L15
L18            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L15
L19            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16
L20        10974 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L21          196 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10
L22           38 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 AND L21
L23           38 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L18 OR L19 OR L22)
L24           38 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L23 OR L13)
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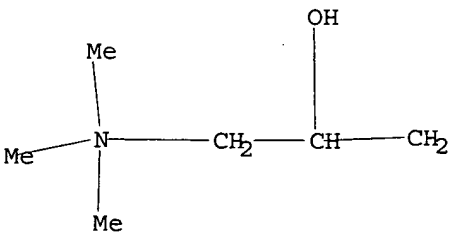
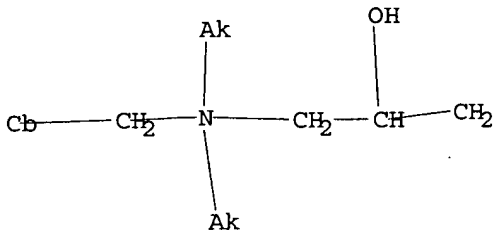
=> d que l39
L3 STR

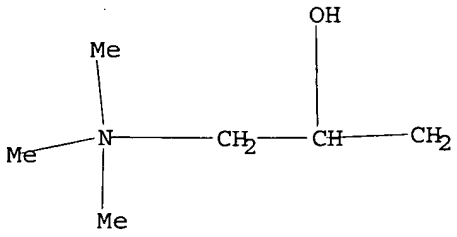


Structure attributes must be viewed using STN Express query preparation.
L7 STR

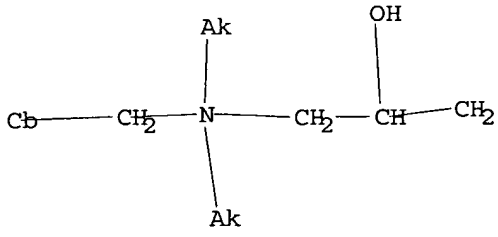


Structure attributes must be viewed using STN Express query preparation.
L9 3024 SEA FILE=REGISTRY SSS FUL L3
L10 500 SEA FILE=REGISTRY SSS FUL L7
L28 137 SEA FILE=REGISTRY ABB=ON PLU=ON L9 AND CAOLD/LC
L34 39 SEA FILE=REGISTRY ABB=ON PLU=ON L10 AND CAOLD/LC
L37 220 SEA FILE=CAOLD ABB=ON PLU=ON L28
L38 10 SEA FILE=CAOLD ABB=ON PLU=ON L34
L39 4 SEA FILE=CAOLD ABB=ON PLU=ON L37 AND L38

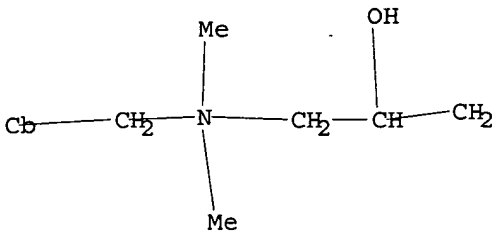
=> d que l57
L3 STR



Structure attributes must be viewed using STN Express query preparation.
L7 STR



Structure attributes must be viewed using STN Express query preparation.
L49 4068 SEA FILE=MARPAT SSS FUL L3
L50 1093 SEA FILE=MARPAT SSS FUL L7
L51 4067 SEA FILE=MARPAT ABB=ON PLU=ON L49/COM
L54 STR



Structure attributes must be viewed using STN Express query preparation.
L55 928 SEA FILE=MARPAT SUB=L50 SSS FUL L54
L56 910 SEA FILE=MARPAT ABB=ON PLU=ON L55/COM
L57 863 SEA FILE=MARPAT ABB=ON PLU=ON L51 AND L56

=> dup rem l66,l72,l24,l39
DUPLICATE IS NOT AVAILABLE IN 'CAOLD'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
FILE 'HCAPLUS' ENTERED AT 13:49:49 ON 21 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE 'CAOLD' ENTERED AT 13:49:49 ON 21 DEC 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)
PROCESSING COMPLETED FOR L66
PROCESSING COMPLETED FOR L72
PROCESSING COMPLETED FOR L24
PROCESSING COMPLETED FOR L39
L73 49 DUP REM L66 L72 L24 L39 (6 DUPLICATES REMOVED)
ANSWERS '1-40' FROM FILE HCAPLUS
ANSWERS '41-45' FROM FILE WPIX
ANSWERS '46-49' FROM FILE CAOLD

=> d ibib abs hitstr retable l73 1-40;d all abeq tech l73 41-45;d bib l73 46-49

L73 ANSWER 1 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2004:308572 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 140:340991
TITLE: ***Cationised polysaccharide*** product, preparation, and use for production of paper
INVENTOR(S): ***Solhage, Fredrik; Nilsson, Per-Ola***
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Eka Chemicals AB
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2004031478	A1	20040415	WO 2003-SE1523	20031001
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2500545	A1	20040415	CA 2003-2500545	20031001
AU 2003265198	A1	20040423	AU 2003-265198	20031001
US 2004104004	A1	20040603	US 2003-676335	20031001 <--
US 2004138438	A1	20040715	US 2003-676176	20031001 <--
EP 1546455	A1	20050629	EP 2003-799231	20031001
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014868	A	20050802	BR 2003-14868	20031001
CN 1703553	A	20051130	CN 2003-80100817	20031001
JP 2006501348	T	20060112	JP 2004-541377	20031001
PRIORITY APPLN. INFO.:			EP 2002-445121 A	20021001
			US 2002-415184P P	20021001 <--
			WO 2003-SE1523 W	20031001

AB The ***cationized polysaccharide*** product comprises a ***polysaccharide*** having ≥1 first substituent having an aromatic group and ≥1 s substituent having no aromatic group. The ***cationized polysaccharide*** product comprises ≥1 ***polysaccharides*** having ≥1 first substituent having an aromatic group and ≥1 ***polysaccharides*** having ≥1 s substituent having no aromatic group. The method for the preparation of a ***cationized polysaccharide*** product comprises reacting ≥1 ***polysaccharides*** with ≥1 aromatic agent and ≥1 nonarom. agent. The method for the preparation of a ***cationized polysaccharide*** product comprises reacting a first ***polysaccharide*** with ≥1 aromatic agent, reacting a second ***polysaccharide*** with ≥1 s nonarom. agent, and then mixing the ***polysaccharides***. The process for production of paper from an aqueous suspension containing cellulosic fibers, and optionally fillers, comprises adding to the suspension a ***cationized polysaccharide*** product comprising a ***polysaccharide*** having (i) ≥1 first substituent having an aromatic group, and (ii) ≥1 s substituent having no aromatic group, forming and draining the suspension on a wire. The process for production of paper from an aqueous suspension containing cellulosic fibers, and optionally fillers, comprises adding to the suspension a ***cationized polysaccharide*** product comprising (i) ≥1 ***polysaccharide*** having ≥1 first substituent having an aromatic group and (ii) ≥1 ***polysaccharide*** having ≥1 s substituent having no aromatic group, where either/or ***polysaccharides*** according to (i) and (ii) are ***cationic*** and/or amphoteric, forming and draining the suspension on a wire. The process for production of paper from an aqueous suspension containing cellulosic fibers, and optionally fillers, comprises sep. adding to the suspension (i) ≥1 ***polysaccharide*** having ≥1 first substituent having an aromatic group; and (ii) ≥1 ***polysaccharide*** having ≥1 s substituent having no aromatic group, where either/or ***polysaccharides*** according to (i)

and (ii) are ***cationic*** and/or amphoteric, forming and draining the suspension on a wire.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Eka, C	1999			WO 9955964 A	HCAPLUS
Persson, M	2002			WO 0212622 A	HCAPLUS

L73 ANSWER 2 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2003:450338 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 140:165637
TITLE: New starch based DSA for papermaking in closed water systems
AUTHOR(S): ***Solhage, F.; Nilsson, P.-O.***
CORPORATE SOURCE: Eka Chemicals AB Paper Chemicals Division, Bohus, 445 80, Swed.
SOURCE: PTS-Manuskript (2002), SE 31258, Einsatz von Staerke bei der Papiererzeugung, 9/1-9/8
CODEN: PTSMFN; ISSN: 0942-749X
DOCUMENT TYPE: Report
LANGUAGE: English

AB Cationic starch is used as a dry strength additive (DSA) and for increasing the dewatering and retention in production of paper and board. In every case starch is applied, the adsorption is crucial for the effect of the starch addition For environmental reasons, the trend within the paper industry has during the last years been to further and further lower the water consumption in the paper production At the same time the usage of recycled fiber raw material has also increased due to economical and environmental reasons. The effect of this has led to higher demands on the wet-end chems. used, since the concentration of electrolytes and colloidal material have dramatically increased, e.g. measured as high conductivity and COD.

The conventional starches usually do not perform efficiently in closed systems due to low adsorption at low cationicity and overcharging at high cationicity. These problems would be solved if the adsorption of low cationic starch could be improved by a new modification. By a small but powerful change of the chemical composition of the cationic starch, the performance in high conductivity systems has been increased. A lot of results indicate a different mechanism for the adsorption of this new starch based DSA, which is less sensitive to increased conductivity Thus quite high amts. of this new low cationic product can be adsorbed onto the fibers, without problems with overcharging the system. In a model furnish, consisting of fiber and colloidal material from an SC paper mill, the dewatering and retention was improved by using the new DSA compared with a conventional starch with the same cationic charge. The effect was more pronounced the higher the conductivity The adsorption behavior of the new DSA:s compared to the conventional starches was investigated in a statistical study using unbleached softwood kraft fibers for preparation of paper sheets. The adsorption of the new DSA:s was significantly improved compared to the conventional starches at the same cationicity and conductivity Furthermore the study proved that it is possible to both decrease the cationicity and increase the adsorption by using the new DSA. The increased adsorption was also seen as increased burst strength of the paper sheets. In another study with 100% recycled fiber material from a linerboard mill, the SCT strength and adsorption was improved by using the new DSA. The comparison was made with conventional starch of the same and much higher cationicity,

at medium and high conductivity Once again the robustness of the new DSA towards
increased conductivity was proven. In the application studies the new starch based dry strength additive has proven to be superior to the conventional starches. The next step is now to apply this new technol. in paper mills with high amts. of recycled fibers and low water consumption.

L73 ANSWER 3 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2002:123316 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 136:169237
TITLE: Manufacture of paper with improved drainage and retention by adding cationic and anionic polymers having aromatic groups
INVENTOR(S): Froelich, Sten; ***Solhage, Fredrik***; Lindgren, Erik; Johansson-Vestin, Hans
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Eka Chemicals AB
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002012626	A1	20020214	WO 2001-SE1701	20010802
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2418424	A1	20020214	CA 2001-2418424	20010802
AU 2001080361	A5	20020218	AU 2001-80361	20010802
EP 1309758	A1	20030514	EP 2001-958740	20010802
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001012906	A	20030624	BR 2001-12906	20010802
JP 2004506105	T	20040226	JP 2002-517897	20010802
NZ 523956	A	20040227	NZ 2001-523956	20010802
TR 200300157	T2	20041221	TR 2003-157	20010802
RU 2244776	C2	20050120	RU 2003-106414	20010802
ZA 2003001792	A	20040419	ZA 2003-1792	20030131
NO 2003000559	A	20030204	NO 2003-559	20030204
US 2004206467	A1	20041021	US 2004-842866	20040510

PRIORITY APPLN. INFO.:		
EP 2000-850135	A	20000807
EP 2000-850136	A	20000807
EP 2000-850137	A	20000807
EP 2000-850195	A	20001116
US 2000-223367P	P	20000807
US 2000-223368P	P	20000807
US 2000-223369P	P	20000807
US 2000-249365P	P	20001116
WO 2001-SE1701	W	20010802
US 2001-923097	A3	20010806

AB Process for manufacture of paper from an aqueous suspension containing cellulosic

fibers, and optional fillers comprises sep. adding to the suspension a cationic organic polymer having ≥1 aromatic groups (e.g., cationic starch obtained from native potato starch with 3-chloro-2-hydroxypropyldimethylbenzylammonium chloride) and an anionic polymer having ≥1 aromatic groups (e.g., formaldehyde -naphthalenesulfonate anionic polycondensate), forming and draining the suspension on a wire.

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Bonn, J	1999			US 6001166 A	HCAPLUS
Nalco Chemical Company	1970			GB 1177512 A	
Sikkar, R	1998			WO 9833979 A	HCAPLUS

L73 ANSWER 4 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:74463 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 144:173923
TITLE: Water-based drilling fluids
INVENTOR(S): Melbouci, Mohand; Sau, Arjun C.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006019834	A1	20060126	US 2004-896672	20040722
WO 2006014717	A1	20060209	WO 2005-US25716	20050720

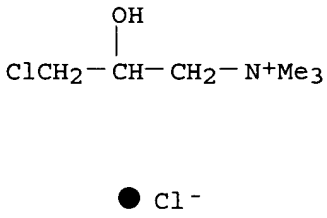
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-896672 A 20040722

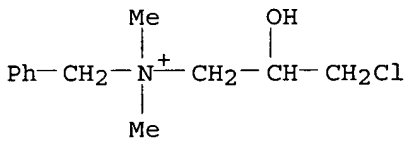
AB A water-based drilling fluid composition includes water and at least one rheol. modifier and/or fluid loss control agent, and at least one other ingredient of polymeric additive, inorg. salts, dispersants, shale stabilizers, weighting agents, or finely divided clay particles, depending upon the desired attributes, wherein the rheol. modifier and/or the fluid loss control agent comprises carboxymethylated raw cotton linters (CM-RCL) made from the baled raw cotton linters or comminuted raw cotton linters with increased bulk d.

IT ***3327-22-8D***, 3-Chloro-2-hydroxypropyl trimethylammonium chloride, salts with carboxymethylated linter derivs. ***67304-25-0D***, salts with carboxymethylated linter derivs.
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(water-based drilling fluids containing carboxymethylated milled cotton linter derivs.)

RN 3327-22-8 HCAPLUS
CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



RN 67304-25-0 HCAPLUS
CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



L73 ANSWER 5 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:1085256 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 145:421019
TITLE: Biodegradable konjac glucomannan quaternized derivative
INVENTOR(S): Xiao, Chaobo; Yu, Huiqun; Huang, Yihong; Lu, Jun
PATENT ASSIGNEE(S): Wuhan University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 7pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1844157	A	20061011	CN 2006-10018739	20060411

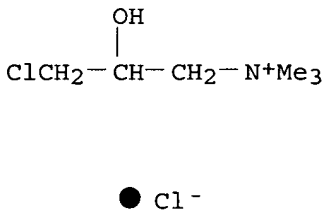
PRIORITY APPLN. INFO.: CN 2006-10018739 20060411

AB The preparation comprises alkalizing Konjac glucomannan solution with inorg. base at a molar ratio of 1:5-1:25, allowing to react with quaternizing reagent at 0-50° for 4-16h to obtain Konjac glucomannan quaternized derivative with its substituted degree of 0.034-0.349 and Mw of 3.67*105-6.07x105. The quaternizing agent is 3-chloro-2-hydroxypropylhydrocarbyldimethyl ammonium chloride, where hydrocarbyl is C1-8 alkyl or benzyl. The inorg.

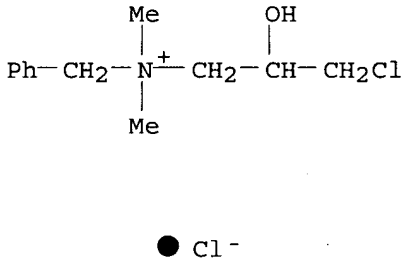
base is sodium hydroxide or potassium hydroxide. The molar ratio of inorg. base to 3-chloro-2-hydroxypropylhydrocarbyldimethyl ammonium chloride is 1.1:1-1.3:1. The product has cation characteristic, greatly improved rheol. property, water solubility, moisture absorptivity and moisture retainment property, antibacterial property, etc., and the invention has the advantages such as simple technol., water as medium, no environmental pollution, cheap resource. The product may be used as cationic reagent and additive in shampoo or skin-care products and in food antibacterial packaging material.

IT ***3327-22-8 67304-25-0***
RL: RCT (Reactant); RACT (Reactant or reagent)
(biodegradable Konjac glucomannan quaternized derivative)

RN 3327-22-8 HCAPLUS
CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



RN 67304-25-0 HCAPLUS
CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



L73 ANSWER 6 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:815227 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 145:294555
TITLE: Method for manufacturing nanoparticles modified functional textile
INVENTOR(S): Guan, Yonghua; Zhu, Guohua
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1814904	A	20060809	CN 2006-10038729	20060309

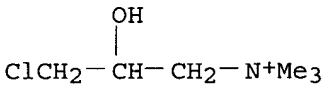
PRIORITY APPLN. INFO.: CN 2006-10038729 20060309

AB The title nanoparticles modified functional textile is prepared by dipping the textile in cationizing agent at 50-70 °C for 30-50 min; and padding in a nanoparticle water dispersion, centrifuging and drying. The cationizing agent is N-(2-hydroxy-3-chloropropyl)-N,N,N-trimethylammonium chloride, N-(2-hydroxy-3-chloropropyl)-N-benzyl-N,N-dimethylammonium chloride or hexamethylene-bis(3-chloro-2-hydroxypropyldimethylammonium chloride). The nanoparticle water dispersion is composed of modified nanoparticles (zinc oxide nanoparticles, titania nanoparticles, silver nanoparticles or ferric oxide nanoparticles) 10-30 wt%, dispersant (such as sodium polyacrylate, polyacrylamide, etc.) 1-20 wt%, and hydrophilic silicone solution 50-70 wt%.

IT ***3327-22-8***, (2-Hydroxy-3-chloropropyl)trimethylammonium chloride
67304-25-0, N-(2-Hydroxy-3-chloropropyl)-N-benzyl-N,N-dimethyl ammonium chloride
RL: NUU (Other use, unclassified); USES (Uses)
(method for manufacturing nanoparticles modified functional textile)

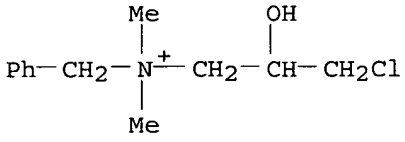
RN 3327-22-8 HCAPLUS

CN 1-Propanaminium, 3-chloro-2-hydroxy-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)



RN 67304-25-0 HCAPLUS

CN Benzenemethanaminium, N-(3-chloro-2-hydroxypropyl)-N,N-dimethyl-, chloride (9CI) (CA INDEX NAME)



L73 ANSWER 7 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:985119 HCAPLUS <<LOGINID::20061221>>

DOCUMENT NUMBER: 143:250074

TITLE: Synthetic multiple quaternary ammonium salts useful

for quaternization of polymers, etc.
INVENTOR(S): Lang, Weilian; Little, Charles; Van De Pas, Victor
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005194113	A1	20050908	US 2004-795772	20040308
CA 2558673	A1	20051020	CA 2005-2558673	20050301
WO 2005097732	A1	20051020	WO 2005-US6552	20050301
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1720824	A1	20061115	EP 2005-724150	20050301
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				

PRIORITY APPLN. INFO.:

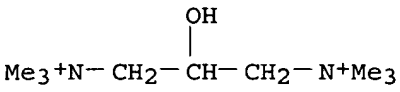
US 2004-550274P	P	20040305
US 2004-795772	A	20040308
WO 2005-US6552	W	20050301

OTHER SOURCE(S): MARPAT 143:250074

AB This invention pertains to novel multiple quaternary ammonium salts and their derivs. of the formula [R3R2R1N+CH2CH(OR6)CH2N+R4R5CH2CH(OR6)CH2N+R1'R2'R3']A- (R1,R1',R2,R2',R3,R3',R4,R5 = alkyl, aryl, aralkyl, -CH2CH(OR6)CH2N+R1R2R3; ≥1 of R6 = glycidyl, 3-chloro-2-hydroxypropyl; A = anion). This invention also pertains to multiple quaternary ammonium salts and their derivs. represented by the formula [R3R2R1N+CH2CH(OR4)CH2N+R4R5]A- (R1,R1',R2,R2',R3,R3',R4,R5 = alkyl, aryl, aralkyl, -CH2CH(OR4)CH2N+R1R2R3; ≥1 of R4 = glycidyl, 3-chloro-2-hydroxypropyl; A = anion).

IT ***55636-09-4P 415938-92-0P***, N,N'-Bis[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-2-hydroxy-N,N,N',N'-tetramethyl-1,3-propanediaminium tetrachloride ***863476-99-7P***
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(synthetic multiple quaternary ammonium salts useful for quaternization of polymers, etc.)

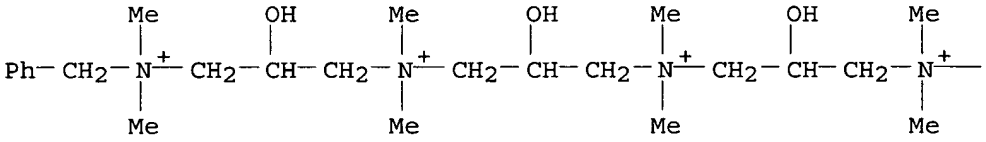
RN 55636-09-4 HCAPLUS
CN 1,3-Propanediaminium, 2-hydroxy-N,N,N,N',N',N'-hexamethyl-, dichloride (9CI) (CA INDEX NAME)



●2 Cl⁻

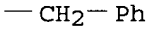
RN 415938-92-0 HCAPLUS
CN 1,3-Propanediaminium, N,N'-bis[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-2-hydroxy-N,N,N',N'-tetramethyl-, tetrachloride (9CI) (CA INDEX NAME)

PAGE 1-A

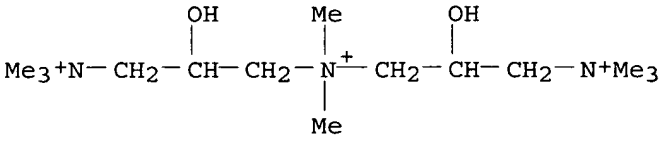


●4 Cl⁻

PAGE 1-B



RN 863476-99-7 HCAPLUS
CN 1,3-Propanediaminium, 2-hydroxy-N-[2-hydroxy-3-(trimethylammonio)propyl]-N,N,N',N',N'-pentamethyl-, trichloride (9CI) (CA INDEX NAME)



●3 Cl⁻

L73 ANSWER 8 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:636497 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 137:171443
TITLE: Polyoxyalkylene reactive cationic emulsifiers for aqueous polymer dispersions
INVENTOR(S): Kurahashi, Hiroyuki; Haneda, Yasunobu
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

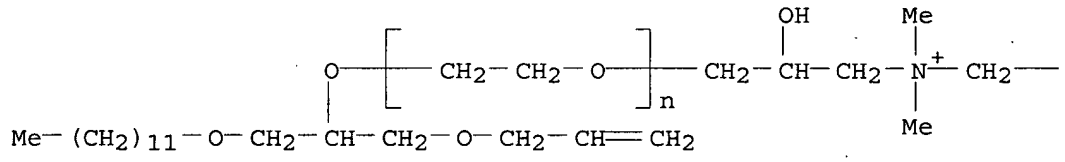
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002234905	A	20020823	JP 2001-32424	20010208
PRIORITY APPLN. INFO.:			JP 2001-32424	20010208

AB The emulsifiers R1O(AO)lCH2CHBCH2OCH2CR2:CH2 [I; B = O(AO)nCH2CH(OH)CH2N+R3R4R5X-; R1 = C8-24 hydrocarbyl; R2 = H, Me; R3-R5 = C1-8 hydrocarbyl; A = C2-4 (substituted) alkylene; l = 0-100; n = 0-200; X- = monovalent anion]. Thus, Me methacrylate was polymerized with 2-ethylhexyl acrylate and I (R1 = nonylphenyl, R2 = H, R3-R5 = Me, A = CH2CH2, X = Cl, l = 0, n = 10) in water to give an emulsion showing good mech. stability. Then, a film manufactured from the emulsion showed good water resistance.

IT ***447440-26-8P 447440-28-0P 447440-29-1P 447440-30-4P 447448-31-9P 447452-04-2P 447452-05-3P 447452-06-4P***
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(manufacture of polyoxyalkylene reactive cationic emulsifiers for aqueous polymer dispersions for films with good water resistance)

RN 447440-26-8 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethoxy]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



● Cl⁻

PAGE 1-B

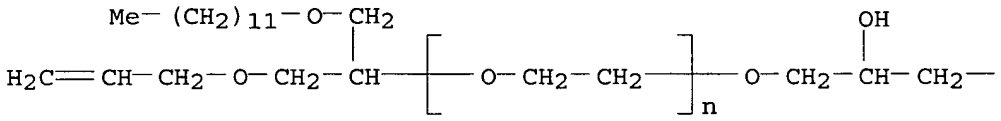
— Ph

RN 447440-28-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]-, methyl sulfate (9CI) (CA INDEX NAME)

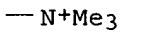
CM 1

CRN 447440-27-9
CMF (C2 H4 O)n C24 H50 N O4
CCI PMS

PAGE 1-A

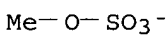


PAGE 1-B



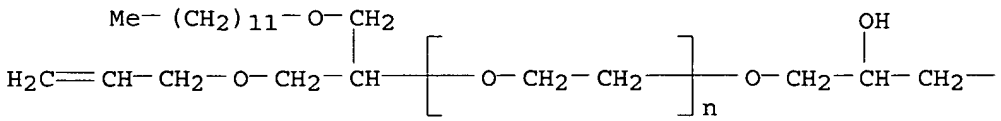
CM 2

CRN 21228-90-0
CMF C H3 O4 S

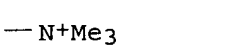


RN 447440-29-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]-, chloride (9CI) (CA INDEX NAME)

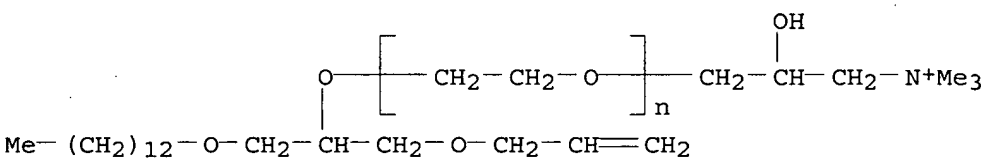
PAGE 1-A



PAGE 1-B



RN 447440-30-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(2-propenyloxy)methyl]-2-(tridecyloxy)ethoxy]-, chloride (9CI) (CA INDEX NAME)



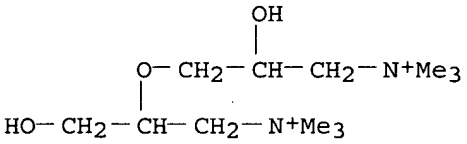
RN 447448-31-9 HCAPLUS
CN Oxirane, ethyl-, polymer with oxirane, 1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether, block, dichloride (9CI) (CA INDEX NAME)

CM 1

CRN 447448-30-8
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

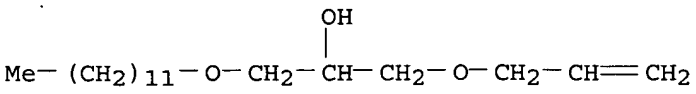
CM 2

CRN 447397-78-6
CMF C12 H30 N2 O3



CM 3

CRN 45261-86-7
CMF C18 H36 O3

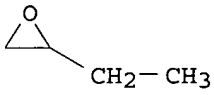


CM 4

CRN 107628-12-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 5

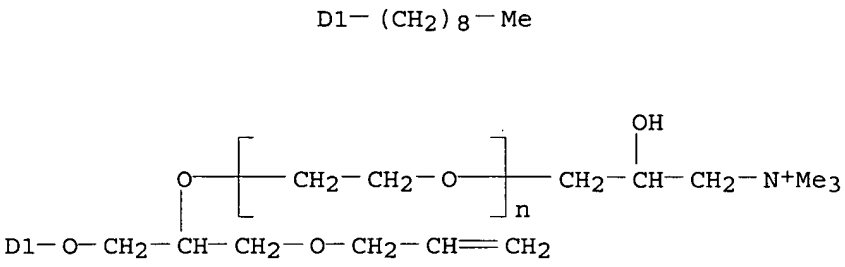
CRN 106-88-7
CMF C4 H8 O

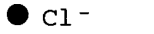


CM 6

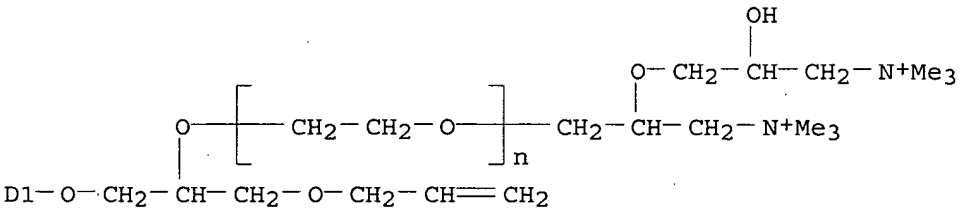
CRN 75-21-8
CMF C2 H4 O

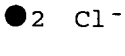
RN 447452-04-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]-, chloride (9CI) (CA INDEX NAME)



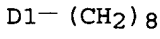


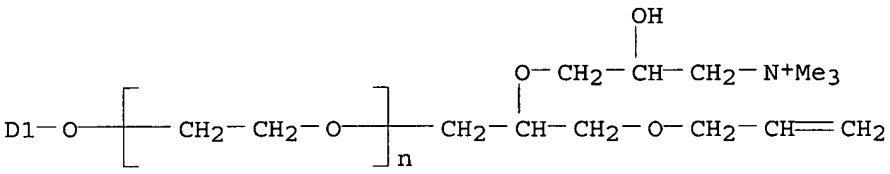
RN 447452-05-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]-, dichloride (9CI) (CA INDEX NAME)





RN 447452-06-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(2-propenyloxy)propyl]-ω-(nonylphenoxy)-, chloride (9CI) (CA INDEX NAME)



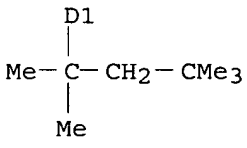


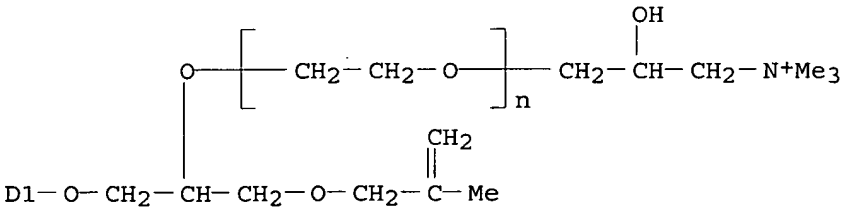
IT ***447452-08-6P***
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture of polyoxyalkylene reactive cationic emulsifiers for aqueous polymer dispersions for films with good water resistance)

RN 447452-08-6 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[[(2-methyl-2-propenyl)oxy]methyl]-2-[(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 2-A

● Cl^-

IT *447440-31-5P 447440-32-6P 447440-33-7P*
447440-34-8P 447440-35-9P 447440-36-0P
447440-37-1P 447440-38-2P 447440-39-3P
447448-32-0P 447448-33-1P 447448-34-2P
447452-09-7P 447452-10-0P 447452-11-1P
447452-13-3P 447452-14-4P 447452-15-5P
447452-16-6P 447452-17-7P 447452-18-8P
447452-19-9P 447452-20-2P 447452-21-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyoxyalkylene reactive cationic emulsifiers for aqueous polymer dispersions for films with good water resistance)

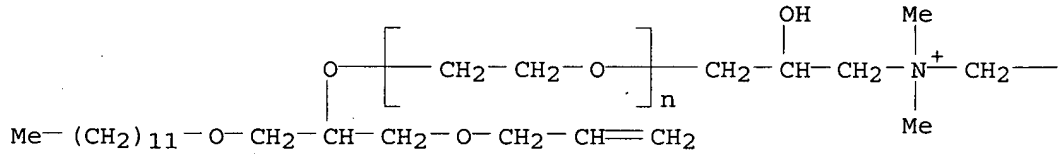
RN 447440-31-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride and 2-ethylhexyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447440-26-8
CMF (C2 H4 O)n C30 H54 N O4 . Cl
CCI PMS

PAGE 1-A



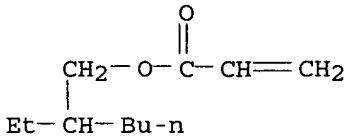
● Cl^-

PAGE 1-B

— Ph

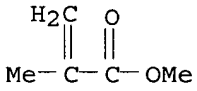
CM 2

CRN 103-11-7
CMF C11 H20 O2



CM 3

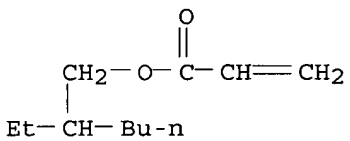
CRN 80-62-6
CMF C5 H8 O2



RN 447440-32-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) methyl sulfate and 2-ethylhexyl 2-propenoate, graft (9CI) (CA INDEX NAME)

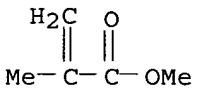
CM 1

CRN 103-11-7
CMF C11 H20 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



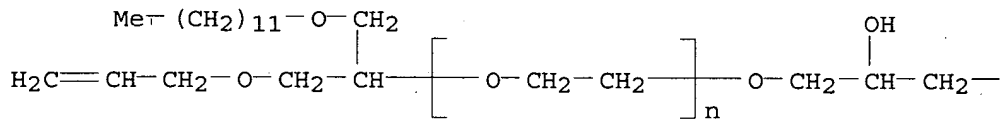
CM 3

CRN 447440-28-0
CMF (C2 H4 O)n C24 H50 N O4 . C H3 O4 S

CM 4

CRN 447440-27-9
CMF (C2 H4 O)n C24 H50 N O4
CCI PMS

PAGE 1-A



PAGE 1-B

—N^+Me_3

CM 5

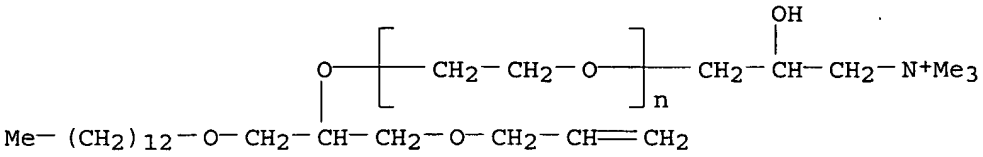
CRN 21228-90-0
CMF C H3 O4 S

Me—O—SO_3^-

RN 447440-33-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) chloride, 2-ethylhexyl 2-propenoate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(2-propenyloxy)methyl]-2-(tridecyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447440-30-4
CMF (C2 H4 O)n C25 H52 N O4 . Cl
CCI PMS

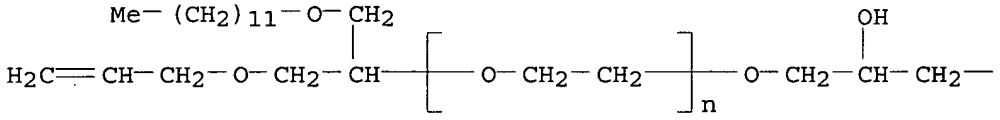


● Cl⁻

CM 2

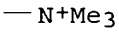
CRN 447440-29-1
CMF (C2 H4 O)n C24 H50 N O4 . Cl
CCI PMS

PAGE 1-A



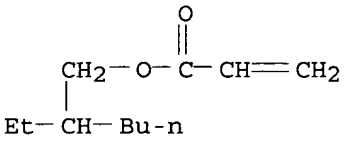
● Cl⁻

PAGE 1-B



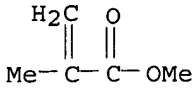
CM 3

CRN 103-11-7
CMF C11 H20 O2



CM 4

CRN 80-62-6
CMF C5 H8 O2

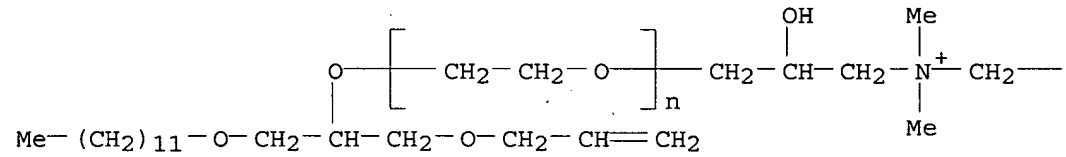


RN 447440-34-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride and ethyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447440-26-8
CMF (C2 H4 O)n C30 H54 N O4 . Cl
CCI PMS

PAGE 1-A

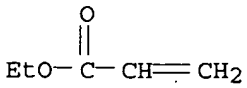


PAGE 1-B

— Ph

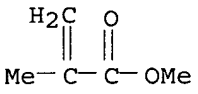
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

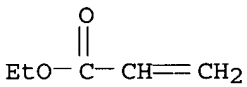
CRN 80-62-6
CMF C5 H8 O2



RN 447440-35-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) methyl sulfate and ethyl 2-propenoate, graft (9CI) (CA INDEX NAME)

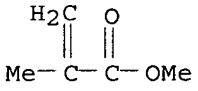
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



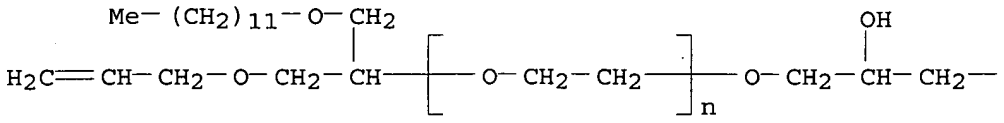
CM 3

CRN 447440-28-0
CMF (C2 H4 O)n C24 H50 N O4 . C H3 O4 S

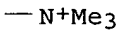
CM 4

CRN 447440-27-9
CMF (C2 H4 O)n C24 H50 N O4
CCI PMS

PAGE 1-A

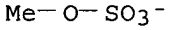


PAGE 1-B



CM 5

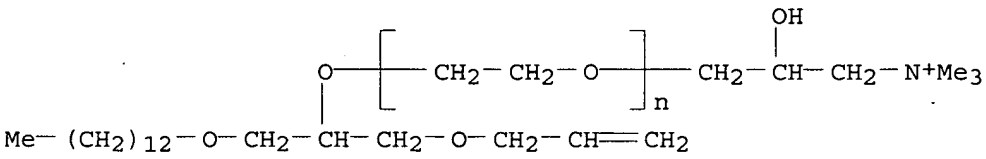
CRN 21228-90-0
CMF C H3 O4 S



RN 447440-36-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) chloride, ethyl 2-propenoate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(2-propenyloxy)methyl]-2-(tridecyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

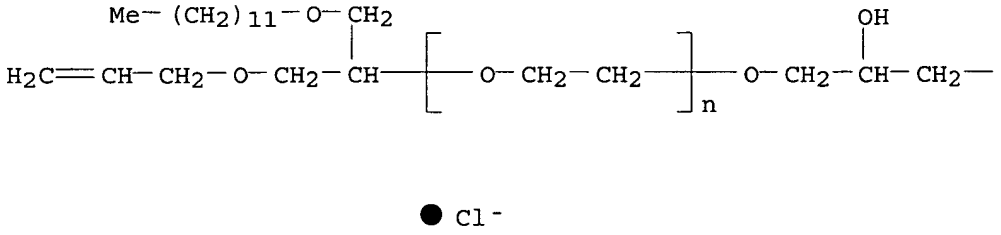
CRN 447440-30-4
CMF (C2 H4 O)n C25 H52 N O4 . Cl
CCI PMS



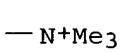
CM 2

CRN 447440-29-1
CMF (C2 H4 O)n C24 H50 N O4 . Cl
CCI PMS

PAGE 1-A

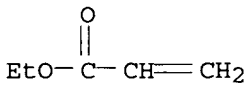


PAGE 1-B



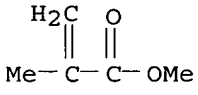
CM 3

CRN 140-88-5
CMF C5 H8 O2



CM 4

CRN 80-62-6
CMF C5 H8 O2

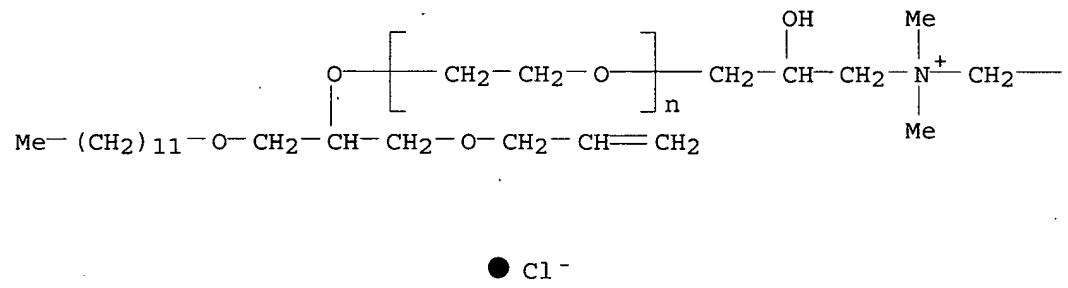


RN 447440-37-1 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride and ethenyl acetate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447440-26-8
CMF (C2 H4 O)n C30 H54 N O4 . Cl
CCI PMS

PAGE 1-A

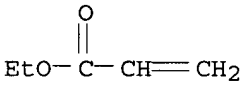


PAGE 1-B

— Ph

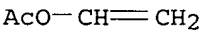
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

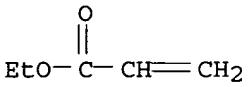
CRN 108-05-4
CMF C4 H6 O2



RN 447440-38-2 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) methyl sulfate and ethenyl acetate, graft (9CI) (CA INDEX NAME)

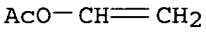
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

CRN 108-05-4
CMF C4 H6 O2



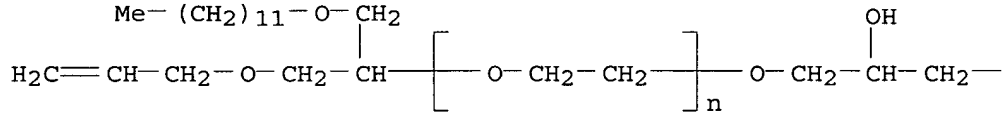
CM 3

CRN 447440-28-0
CMF (C2 H4 O)n C24 H50 N O4 . C H3 O4 S

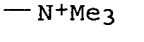
CM 4

CRN 447440-27-9
CMF (C2 H4 O)n C24 H50 N O4
CCI PMS

PAGE 1-A



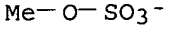
PAGE 1-B



CM 5

CRN 21228-90-0

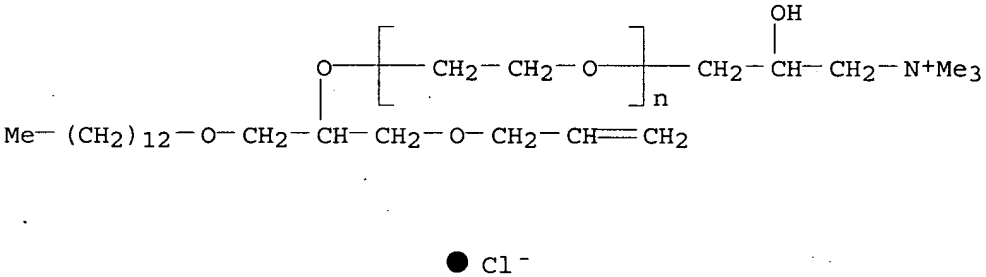
CMF C H3 O4 S



RN 447440-39-3 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) chloride, ethenyl acetate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(2-propenyloxy)methyl]-2-(tridecyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

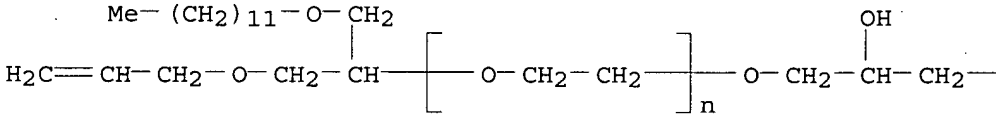
CRN 447440-30-4
CMF (C2 H4 O)n C25 H52 N O4 . Cl
CCI PMS

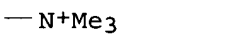


CM 2

CRN 447440-29-1
CMF (C2 H4 O)n C24 H50 N O4 . Cl
CCI PMS

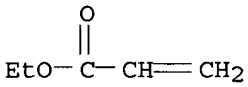
PAGE 1-A





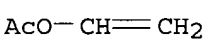
CM 3

CRN 140-88-5
CMF C5 H8 O2



CM 4

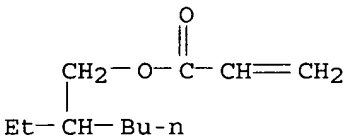
CRN 108-05-4
CMF C4 H6 O2



RN 447448-32-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate and ethyloxirane block polymer with oxirane 1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether dichloride, graft (9CI) (CA INDEX NAME)

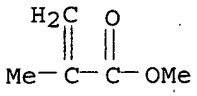
CM 1

CRN 103-11-7
CMF C11 H20 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

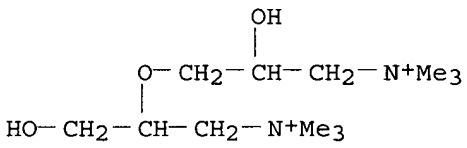
CRN 447448-31-9
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x . 2 Cl

CM 4

CRN 447448-30-8
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

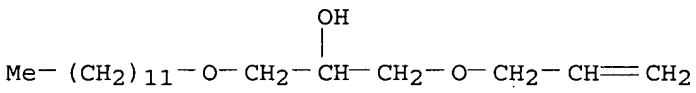
CM 5

CRN 447397-78-6
CMF C12 H30 N2 O3



CM 6

CRN 45261-86-7
CMF C18 H36 O3

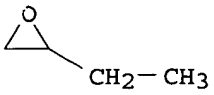


CM 7

CRN 107628-12-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 8

CRN 106-88-7
CMF C4 H8 O



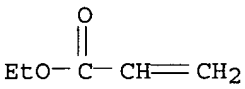
CM 9

CRN 75-21-8
CMF C2 H4 O

RN 447448-33-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate and ethyloxirane block polymer with oxirane 1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether dichloride, graft (9CI) (CA INDEX NAME)

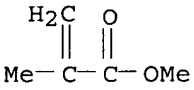
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

CRN 80-62-6
CMF C5 H8 O2



CM 3

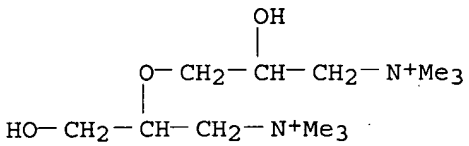
CRN 447448-31-9
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x . 2 Cl

CM 4

CRN 447448-30-8
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

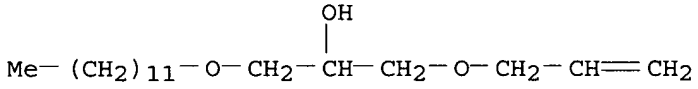
CM 5

CRN 447397-78-6
CMF C12 H30 N2 O3



CM 6

CRN 45261-86-7
CMF C18 H36 O3

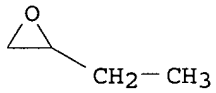


CM 7

CRN 107628-12-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 8

CRN 106-88-7
CMF C4 H8 O



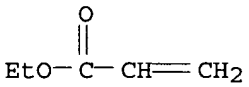
CM 9

CRN 75-21-8
CMF C2 H4 O

RN 447448-34-2 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with ethenyl acetate and ethyloxirane block polymer with oxirane 1-[(dodecyloxy)methyl]-2-(2-propenyloxy)ethyl 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether dichloride, graft (9CI) (CA INDEX NAME)

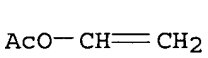
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

CRN 108-05-4
CMF C4 H6 O2



CM 3

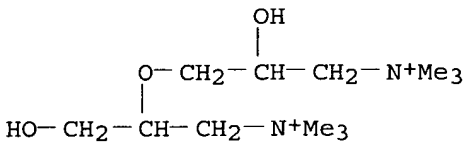
CRN 447448-31-9
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x . 2 Cl

CM 4

CRN 447448-30-8
CMF C18 H36 O3 . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

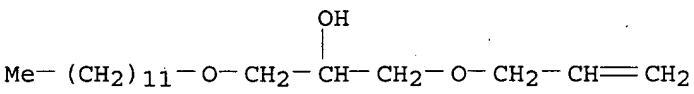
CM 5

CRN 447397-78-6
CMF C12 H30 N2 O3



CM 6

CRN 45261-86-7
CMF C18 H36 O3

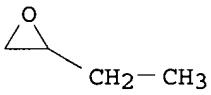


CM 7

CRN 107628-12-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 8

CRN 106-88-7
CMF C4 H8 O



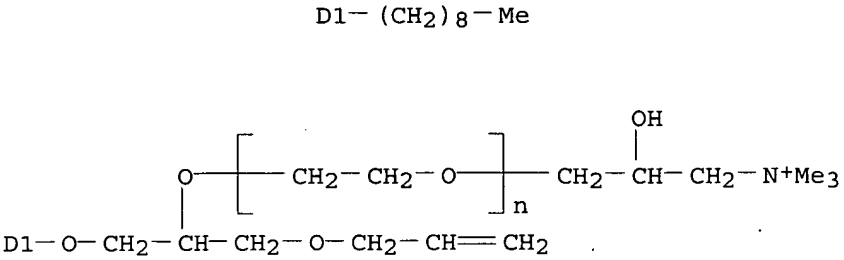
CM 9

CRN 75-21-8
CMF C2 H4 O

RN 447452-09-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

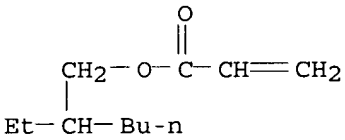
CM 1

CRN 447452-04-2
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS



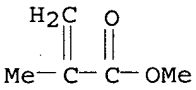
CM 2

CRN 103-11-7
CMF C11 H20 O2



CM 3

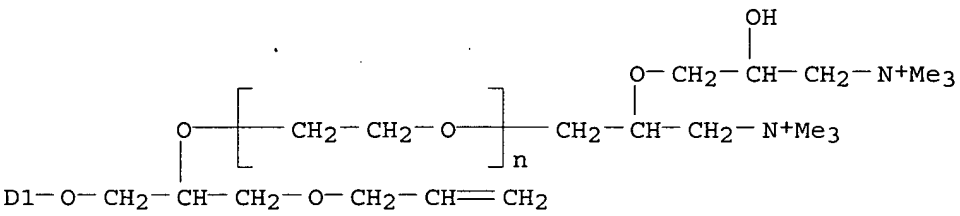
CRN 80-62-6
CMF C5 H8 O2

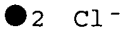


RN 447452-10-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) dichloride, graft (9CI) (CA INDEX NAME)

CM 1

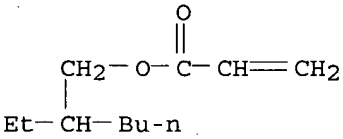
CRN 447452-05-3
CMF (C2 H4 O)n C33 H62 N2 O5 . 2 Cl
CCI IDS, PMS





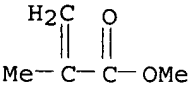
CM 2

CRN 103-11-7
CMF C11 H20 O2



CM 3

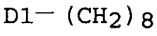
CRN 80-62-6
CMF C5 H8 O2

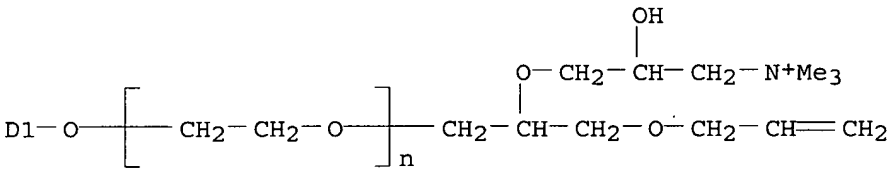


RN 447452-11-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(2-propenyloxy)propyl]-ω-(nonylphenoxy)poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

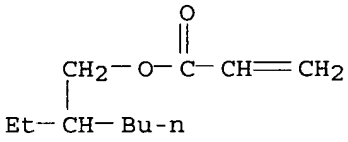
CRN 447452-06-4
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS





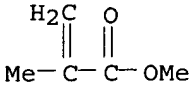
CM 2

CRN 103-11-7
CMF C11 H20 O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



RN 447452-13-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 2-ethylhexyl 2-propenoate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[[(2-methyl-2-propenyl)oxy]methyl]-2-[(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447452-08-6
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS

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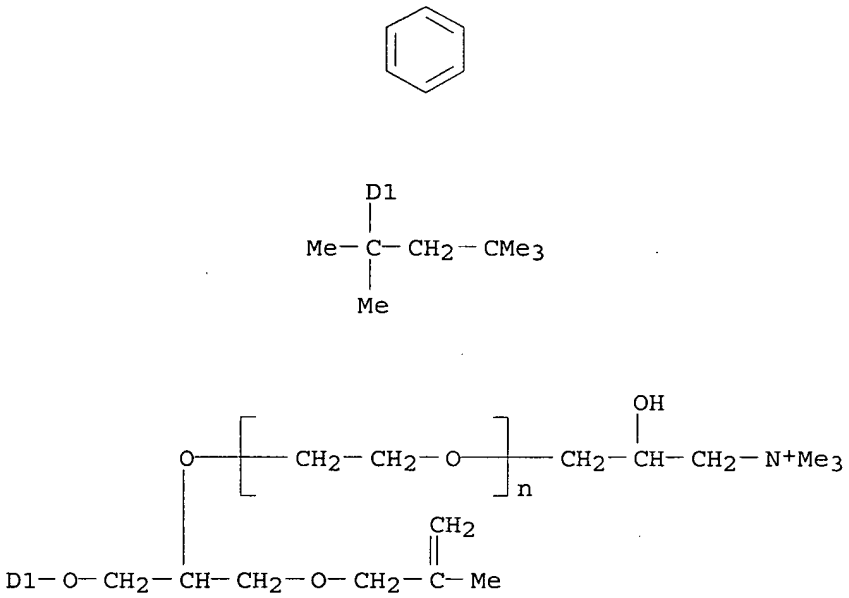

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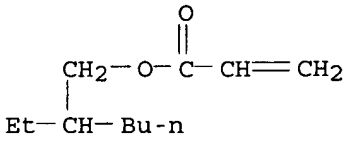
CM 2

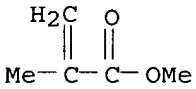
CRN 103-11-7

CMF C11 H20 O2



CM 3

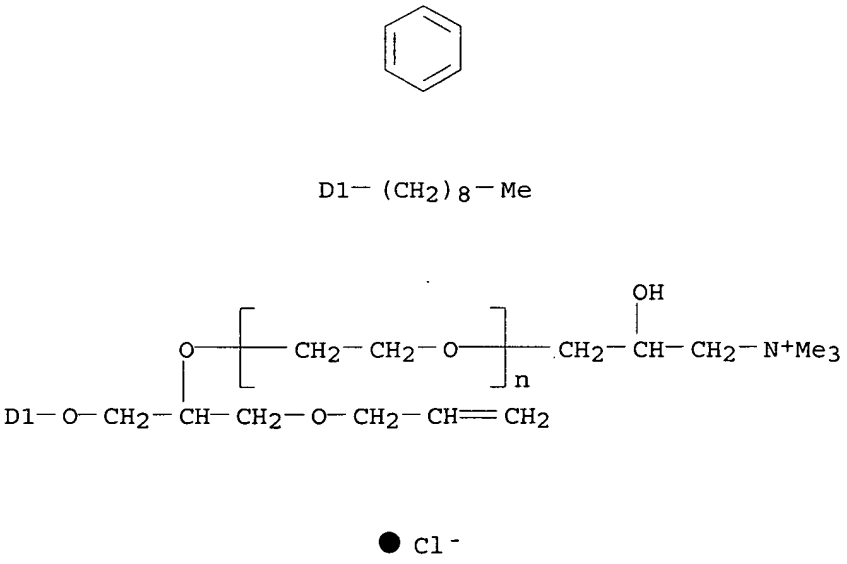
CRN 80-62-6
CMF C5 H8 O2



RN 447452-14-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

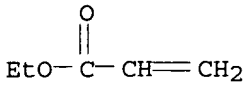
CM 1

CRN 447452-04-2
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS



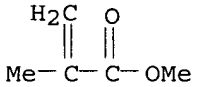
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 80-62-6
CMF C5 H8 O2

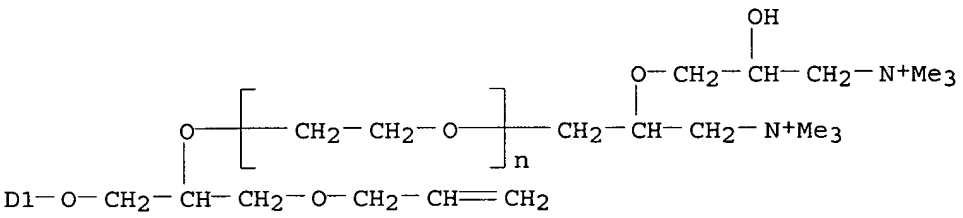


RN 447452-15-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) dichloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447452-05-3
CMF (C2 H4 O)n C33 H62 N2 O5 . 2 Cl
CCI IDS, PMS

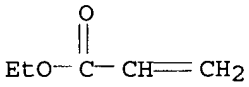
D1— $(CH_2)_8$ — Me



●2 Cl^-

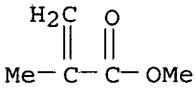
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

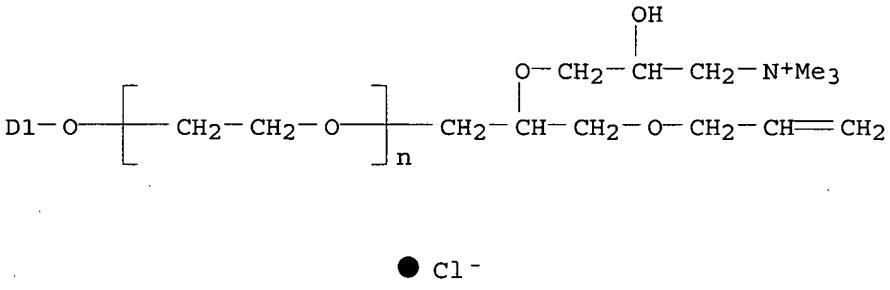
CRN 80-62-6
CMF C5 H8 O2



RN 447452-16-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(2-propenyloxy)propyl]-ω-(nonylphenoxy)poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

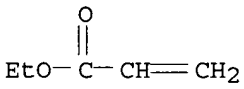
CM 1

CRN 447452-06-4
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS



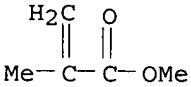
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



RN 447452-17-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethyl 2-propenoate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[[(2-methyl-2-propenyl)oxy]methyl]-2-[(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447452-08-6
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS

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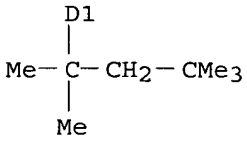

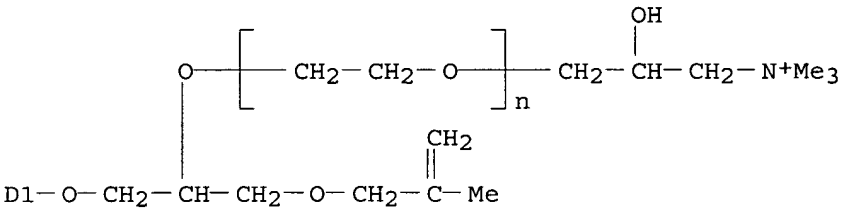

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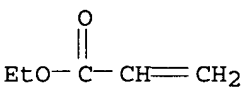
● Cl^-

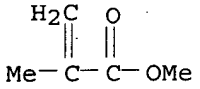
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

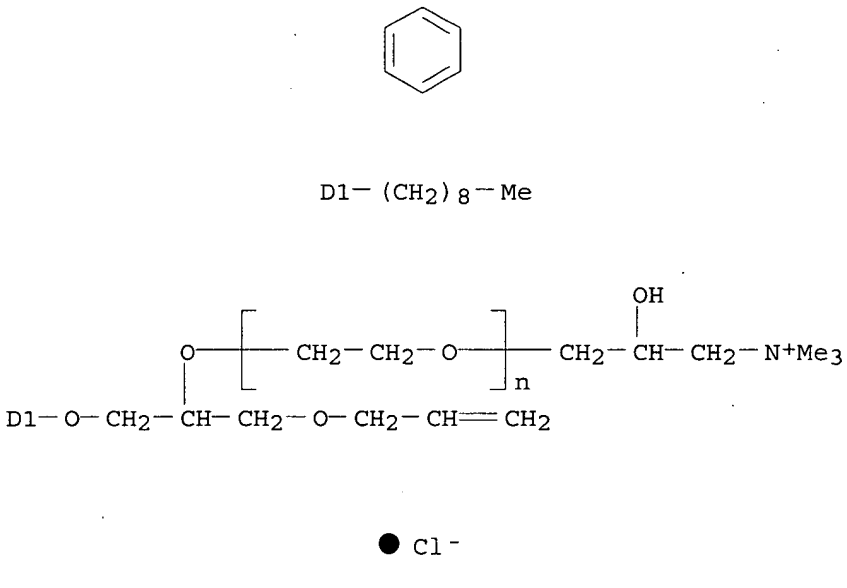
CRN 80-62-6
CMF C5 H8 O2



RN 447452-18-8 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with ethenyl acetate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

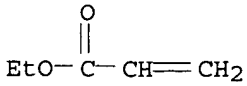
CM 1

CRN 447452-04-2
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS



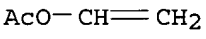
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

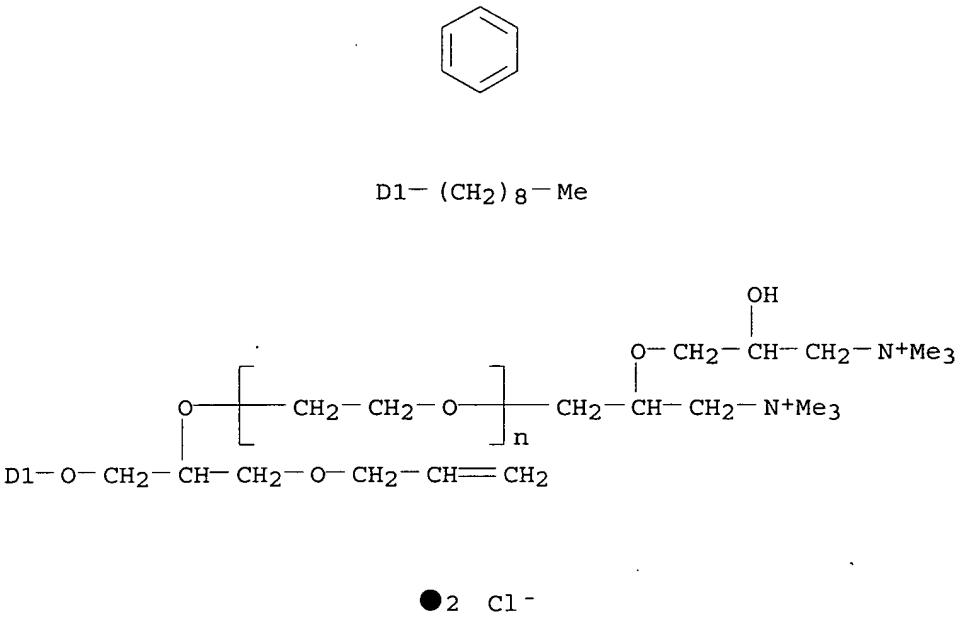
CRN 108-05-4
CMF C4 H6 O2



RN 447452-19-9 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with ethenyl acetate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[1-[(nonylphenoxy)methyl]-2-(2-propenyloxy)ethoxy]poly(oxy-1,2-ethanediyl) dichloride, graft (9CI) (CA INDEX NAME)

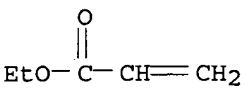
CM 1

CRN 447452-05-3
CMF (C2 H4 O)n C33 H62 N2 O5 . 2 Cl
CCI IDS, PMS



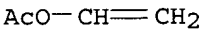
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

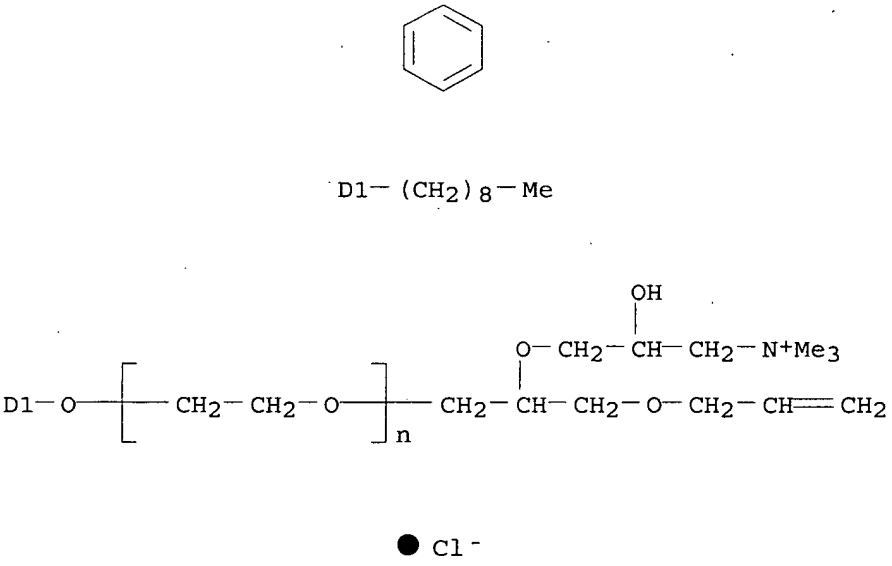
CRN 108-05-4
CMF C4 H6 O2



RN 447452-20-2 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with ethenyl acetate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(2-propenyloxy)propyl]-ω-(nonylphenoxy)poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

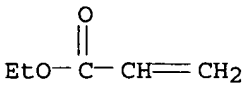
CM 1

CRN 447452-06-4
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS



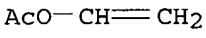
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 108-05-4
CMF C4 H6 O2



RN 447452-21-3 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with ethenyl acetate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[1-[[(2-methyl-2-propenyl)oxy]methyl]-2-[(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 447452-08-6
CMF (C2 H4 O)n C27 H48 N O4 . Cl
CCI IDS, PMS

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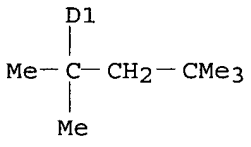
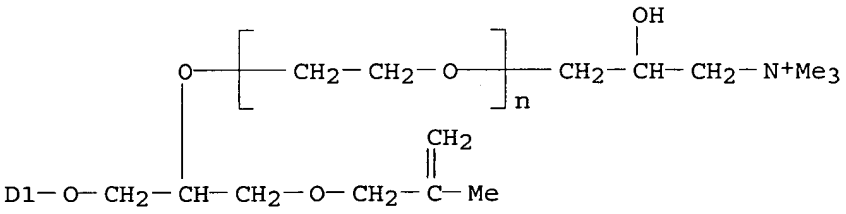


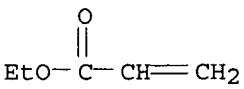


PAGE 2-A

● Cl^-

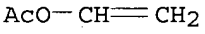
CM 2

CRN 140-88-5
CMF C5 H8 O2



CM 3

CRN 108-05-4
CMF C4 H6 O2



L73 ANSWER 9 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:626073 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 137:170384
TITLE: Reactive emulsifiers for aqueous ethylenically unsaturated monomer emulsions forming films with good water resistance
INVENTOR(S): Kurahashi, Hiroyuki; Haneda, Yasunobu
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002233745	A	20020820	JP 2001-32425	20010208

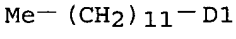
PRIORITY APPLN. INFO.: JP 2001-32425 20010208
OTHER SOURCE(S): MARPAT 137:170384

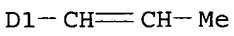
AB The emulsifiers, producing bubble-free emulsions with stable polymerizability, are MeCH:CHC6H2R1R2O(AO)nCH2CH(OH)CH2N+R3R4R5X- (R1 = C8-12 alkyl; R2 = H, propenyl; R3-5 = C1-8 hydrocarbyl; A = C2-4 alkylene; n = 0-200 integer; X- = counter anion) or MeCH:CHC6H2R1R2O(AO)nY [Y = H, [CH2CH(CH2N+R3R4R5X-)O]mCH2CH(OH)CH2N+R3R4R5X-; R1-5, A, n = the same definition as above]. Thus, nonylpropenylphenol was reacted with epichlorohydrin and Me3N to give MeCH:CH(C9H19)C6H3OCH2CH(OH)CH2N+Me3Cl-,

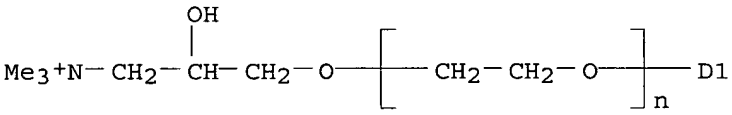
which was polymerized with Bu acrylate to give a transparent water-resistant film.

IT ***446879-14-7P 446879-17-0P 446879-18-1P 446879-26-1P 446879-27-2P 446879-28-3P 447397-80-0P***
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(in preparation of propenyl-substituted cationic emulsifiers for aqueous polymerization of ethylenic monomers)

RN 446879-14-7 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[dodecyl(1-propenyl)phenyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]-, chloride (9CI) (CA INDEX NAME)



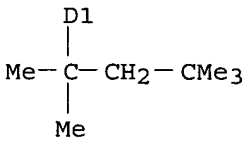


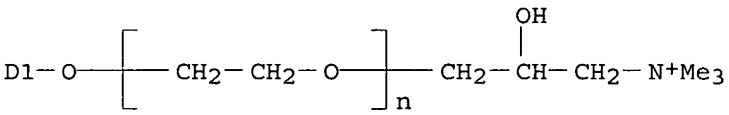


RN 446879-17-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

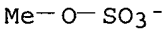
CRN 446879-16-9
CMF (C2 H4 O)n C23 H40 N O2
CCI IDS, PMS





CM 2

CRN 21228-90-0
CMF C H3 O4 S



RN 446879-18-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]-, chloride (9CI) (CA INDEX NAME)

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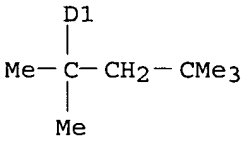

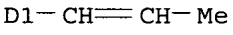

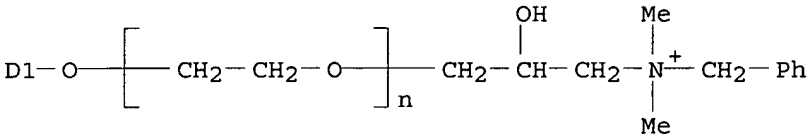

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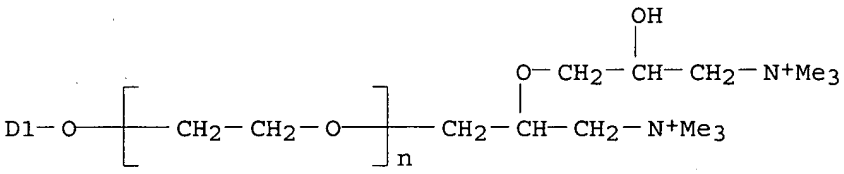
RN 446879-26-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]-, dichloride (9CI) (CA INDEX NAME)

PAGE 1-A

D1— $(CH_2)_8$ — Me

D1— CH═ CH— Me



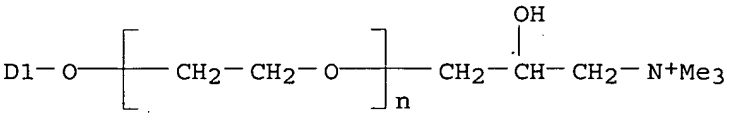
PAGE 2-A

● 2 Cl^-

RN 446879-27-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]-, chloride (9CI) (CA INDEX NAME)

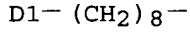
D1— $(CH_2)_8$ — Me

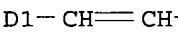
D1— CH═ CH— Me

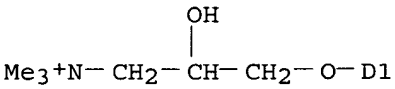


● Cl^-

RN 446879-28-3 HCAPLUS
CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-(nonyl-1-propenylphenoxy)-, chloride (9CI) (CA INDEX NAME)







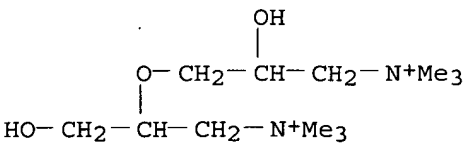
RN 447397-80-0 HCAPLUS
CN Oxirane, ethyl-, polymer with oxirane, 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl (1-propenyl)(1,1,3,3-tetramethylbutyl)phenyl ether, dichloride (9CI) (CA INDEX NAME)

CM 1

CRN 447397-79-7
CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

CM 2

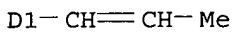
CRN 447397-78-6
CMF C12 H30 N2 O3

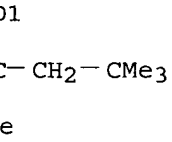


CM 3

CRN 446879-13-6
CMF C17 H26 O

CCI IDS



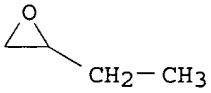


CM 4

CRN 27517-34-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 5

CRN 106-88-7
CMF C4 H8 O



CM 6

CRN 75-21-8
CMF C2 H4 O

IT ***446879-68-1P 446879-69-2P 446879-70-5P***
446879-71-6P 446879-72-7P 446879-73-8P
446879-74-9P 446879-75-0P 446879-76-1P
446879-77-2P 446879-78-3P 446879-79-4P

446879-81-8P 446879-82-9P 446879-83-0P
446879-84-1P 446879-85-2P 446879-86-3P
447397-81-1P 447397-82-2P 447397-83-3P
447397-89-9P, Butyl acrylate-ethylene oxide graft copolymer ether with glycidyltrimethylammonium chloride ***447397-96-8P***, Ethyl acrylate-ethylene oxide graft copolymer ether with glycidyltrimethylammonium chloride ***447398-03-0P***, Butyl acrylate-ethylene oxide-vinyl acetate graft copolymer ether with glycidyltrimethylammonium chloride
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(propenyl-substituted cationic emulsifiers for aqueous polymerization of unsatd. monomers forming waterproof films)

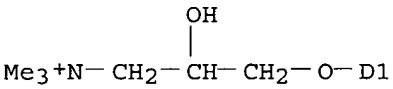
RN 446879-68-1 HCAPLUS
CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[nonyl(1-propenyl)phenoxy]-, chloride, polymer with butyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-28-3
CMF C24 H42 N O2 . Cl
CCI IDS

D1— $(CH_2)_8$ —Me

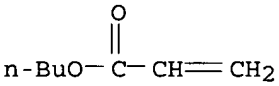
D1— CH═CH— Me



● Cl^-

CM 2

CRN 141-32-2
CMF C7 H12 O2



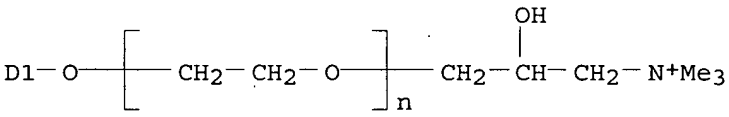
RN 446879-69-2 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-27-2
CMF (C2 H4 O)n C24 H42 N O2 . Cl
CCI IDS, PMS

D1—(CH2)8—Me

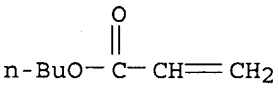
D1—CH═CH—Me



● Cl⁻

CM 2

CRN 141-32-2
CMF C7 H12 O2



RN 446879-70-5 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) dichloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-26-1
CMF (C2 H4 O)n C30 H56 N2 O3 . 2 Cl
CCI IDS, PMS

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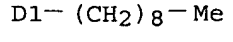
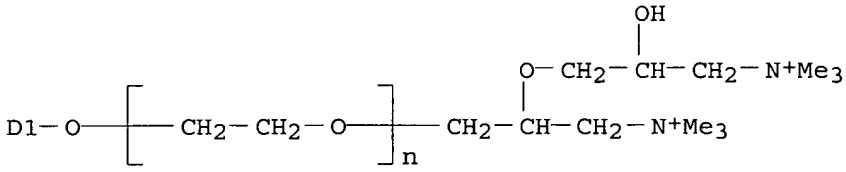
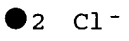


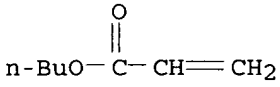


PAGE 2-A



CM 2

CRN 141-32-2
CMF C7 H12 O2



RN 446879-71-6 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-18-1
CMF (C2 H4 O)n C29 H44 N O2 . Cl

CCI IDS, PMS

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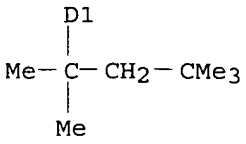

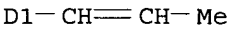

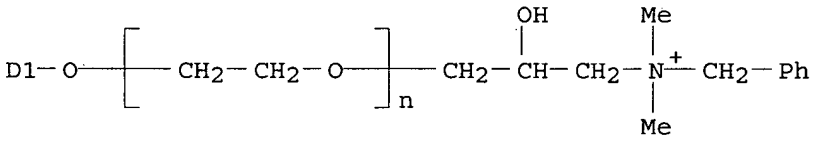

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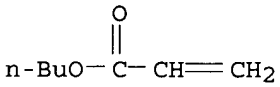
CM 2

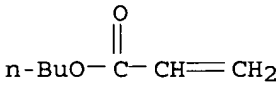
CRN 141-32-2
CMF C7 H12 O2



RN 446879-72-7 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]poly(oxy-1,2-ethanediyl) methyl sulfate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2

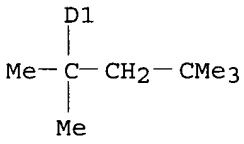


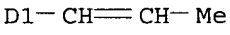
CM 2

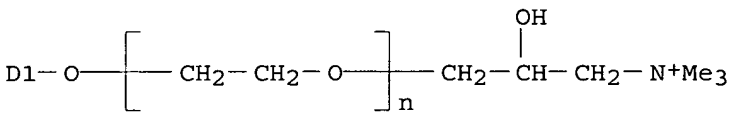
CRN 446879-17-0
CMF (C2 H4 O)n C23 H40 N O2 . C H3 O4 S

CM 3

CRN 446879-16-9
CMF (C2 H4 O)n C23 H40 N O2
CCI IDS, PMS

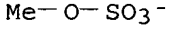






CM 4

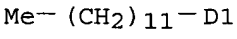
CRN 21228-90-0
CMF C H3 O4 S

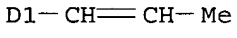


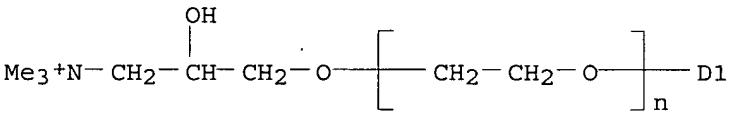
RN 446879-73-8 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with α-[dodecyl(1-propenyl)phenyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-14-7
CMF (C2 H4 O)n C27 H48 N O2 . Cl
CCI IDS, PMS

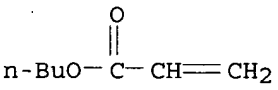






CM 2

CRN 141-32-2
CMF C7 H12 O2



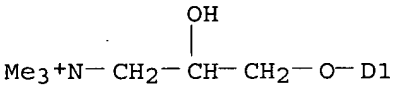
RN 446879-74-9 HCAPLUS
CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-[nonyl(1-propenyl)phenoxy]-, chloride, polymer with ethyl 2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-28-3
CMF C24 H42 N O2 . Cl
CCI IDS

D1— $(CH_2)_8$ — Me

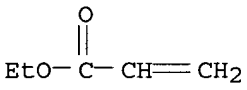
D1— CH═ CH— Me



● Cl^-

CM 2

CRN 140-88-5
CMF C5 H8 O2



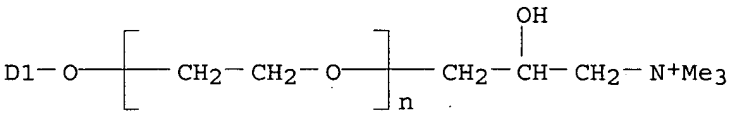
RN 446879-75-0 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-27-2
CMF (C2 H4 O)n C24 H42 N O2 . Cl
CCI IDS, PMS

D1— $(CH_2)_8$ — Me

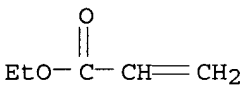
D1— CH═ CH— Me



● Cl^-

CM 2

CRN 140-88-5
CMF C5 H8 O2



RN 446879-76-1 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) dichloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-26-1
CMF (C2 H4 O)n C30 H56 N2 O3 . 2 Cl
CCI IDS, PMS

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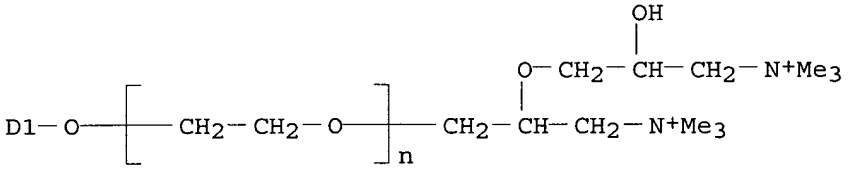
D1— $(CH_2)_8$ —Me

D1— CH═ CH— Me

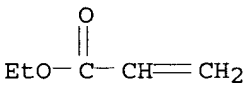


PAGE 2-A

● 2 Cl^-

CM 2

CRN 140-88-5
CMF C5 H8 O2

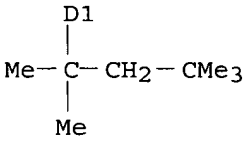


RN 446879-77-2 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

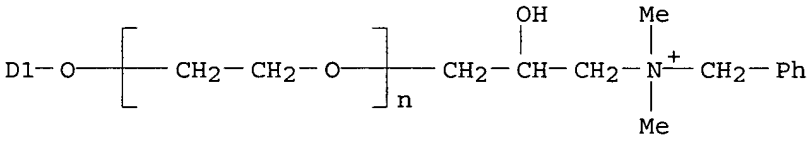
CM 1

CRN 446879-18-1
CMF (C2 H4 O)n C29 H44 N O2 . Cl
CCI IDS, PMS

PAGE 1-A



D1— CH═ CH— Me

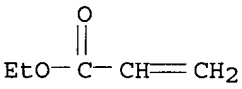


PAGE 2-A

● Cl^-

CM 2

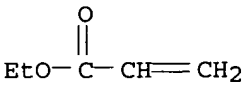
CRN 140-88-5
CMF C5 H8 O2



RN 446879-78-3 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]poly(oxy-1,2-ethanediyl) methyl sulfate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5
CMF C5 H8 O2

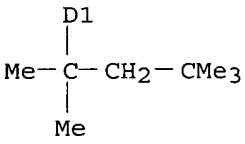


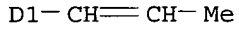
CM 2

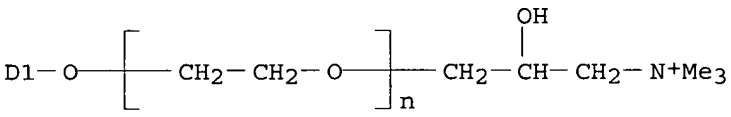
CRN 446879-17-0
CMF (C2 H4 O)n C23 H40 N O2 . C H3 O4 S

CM 3

CRN 446879-16-9
CMF (C2 H4 O)n C23 H40 N O2
CCI IDS, PMS

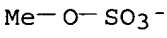






CM 4

CRN 21228-90-0
CMF C H3 O4 S

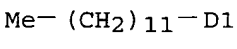


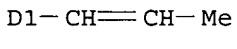
RN 446879-79-4 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with α-[dodecyl(1-propenyl)phenyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-

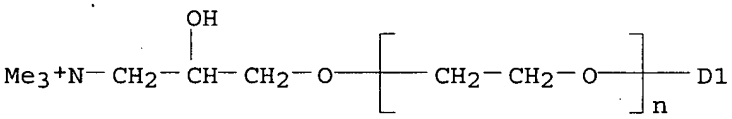
1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-14-7
CMF (C2 H4 O)n C27 H48 N O2 . Cl
CCI IDS, PMS

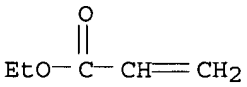






CM 2

CRN 140-88-5
CMF C5 H8 O2



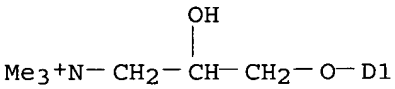
RN 446879-81-8 HCAPLUS
CN 1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-3-(nonyl-1-propenylphenoxy)-, chloride, polymer with butyl 2-propenoate and ethenyl acetate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-28-3
CMF C24 H42 N O2 . Cl
CCI IDS

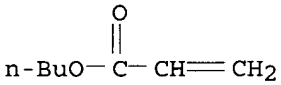
D1— $(CH_2)_8$ — Me

D1— CH═ CH— Me



CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 108-05-4
CMF C4 H6 O2

AcO— CH═ CH_2

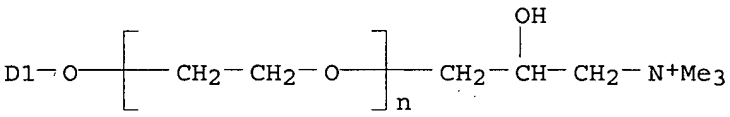
RN 446879-82-9 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-27-2
CMF (C2 H4 O)n C24 H42 N O2 . Cl
CCI IDS, PMS

D1— $(CH_2)_8$ — Me

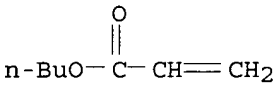
D1— CH═ CH— Me



● Cl^-

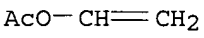
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 108-05-4
CMF C4 H6 O2



RN 446879-83-0 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and α-[2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl]-ω-[nonyl(1-propenyl)phenoxy]poly(oxy-1,2-ethanediyl) dichloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-26-1
CMF (C2 H4 O)n C30 H56 N2 O3 . 2 Cl
CCI IDS, PMS

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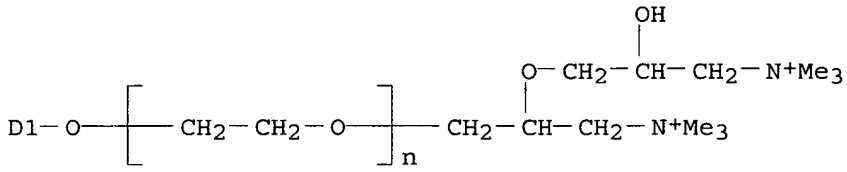
D1— $(CH_2)_8$ —Me

D1— CH═ CH— Me



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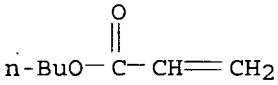
●2 Cl^-

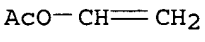
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 108-05-4
CMF C4 H6 O2

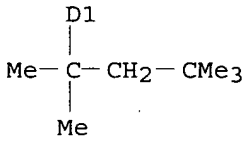


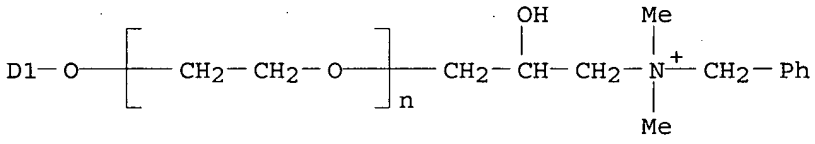
RN 446879-84-1 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and α-[3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-18-1
CMF (C2 H4 O)n C29 H44 N O2 . Cl
CCI IDS, PMS

PAGE 1-A





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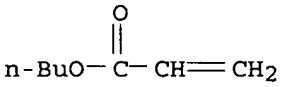
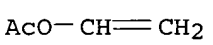
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

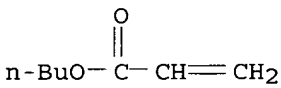
CRN 108-05-4
CMF C4 H6 O2



RN 446879-85-2 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and α-[2-hydroxy-3-(trimethylammonio)propyl]-ω-[(1-propenyl)(1,1,3,3-tetramethylbutyl)phenoxy]poly(oxy-1,2-ethanediyl) methyl sulfate, graft (9CI) (CA INDEX NAME)

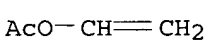
CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 108-05-4
CMF C4 H6 O2

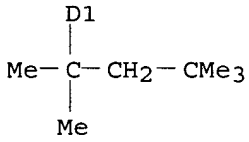


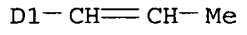
CM 3

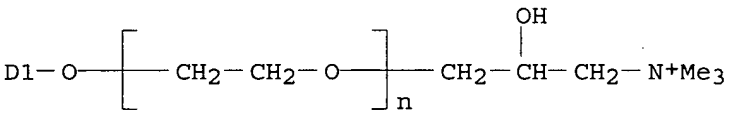
CRN 446879-17-0
CMF (C2 H4 O)n C23 H40 N O2 . C H3 O4 S

CM 4

CRN 446879-16-9
CMF (C2 H4 O)n C23 H40 N O2
CCI IDS, PMS

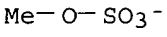






CM 5

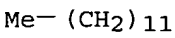
CRN 21228-90-0
CMF C H3 O4 S

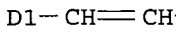


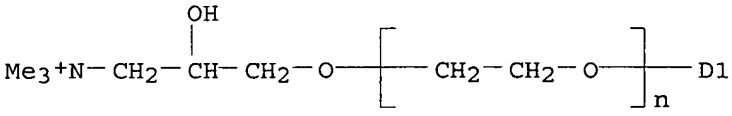
RN 446879-86-3 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and α-[dodecyl(1-propenyl)phenyl]-ω-[2-hydroxy-3-(trimethylammonio)propoxy]poly(oxy-1,2-ethanediyl) chloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 446879-14-7
CMF (C2 H4 O)n C27 H48 N O2 . Cl
CCI IDS, PMS

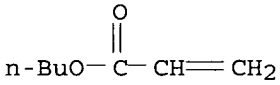






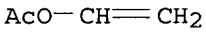
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

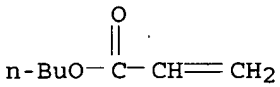
CRN 108-05-4
CMF C4 H6 O2



RN 447397-81-1 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethyloxirane polymer with oxirane 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl (1-propenyl)(1,1,3,3-tetramethylbutyl)phenyl ether dichloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

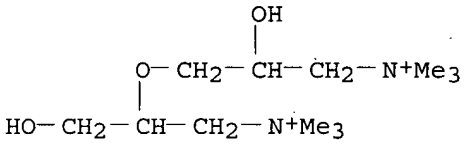
CRN 447397-80-0
CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x . 2 Cl

CM 3

CRN 447397-79-7
CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

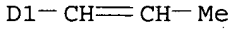
CM 4

CRN 447397-78-6
CMF C12 H30 N2 O3

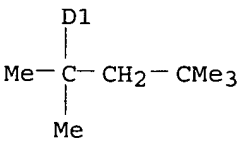


CM 5

CRN 446879-13-6
CMF C17 H26 O
CCI IDS



D1—OH

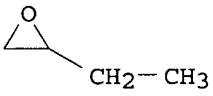


CM 6

CRN 27517-34-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 7

CRN 106-88-7
CMF C4 H8 O



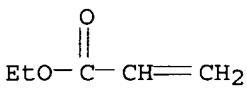
CM 8

CRN 75-21-8
CMF C2 H4 O

RN 447397-82-2 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with ethyloxirane polymer with oxirane 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl (1-propenyl)(1,1,3,3-tetramethylbutyl)phenyl ether dichloride, graft (9CI) (CA INDEX NAME)

CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

CRN 447397-80-0
CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x . 2 Cl

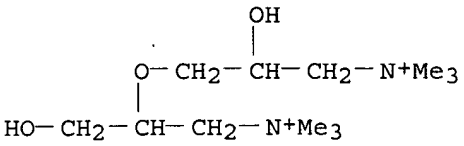
CM 3

CRN 447397-79-7

CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

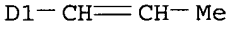
CM 4

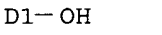
CRN 447397-78-6
CMF C12 H30 N2 O3

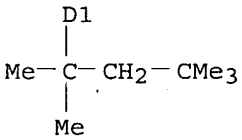


CM 5

CRN 446879-13-6
CMF C17 H26 O
CCI IDS





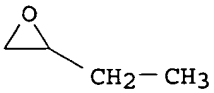


CM 6

CRN 27517-34-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 7

CRN 106-88-7
CMF C4 H8 O



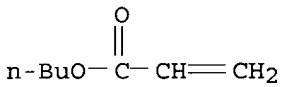
CM 8

CRN 75-21-8
CMF C2 H4 O

RN 447397-83-3 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and ethyloxirane polymer with oxirane 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl (1-propenyl)(1,1,3,3-tetramethylbutyl)phenyl ether dichloride, graft (9CI) (CA INDEX NAME)

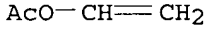
CM 1

CRN 141-32-2
CMF C7 H12 O2



CM 2

CRN 108-05-4
CMF C4 H6 O2



CM 3

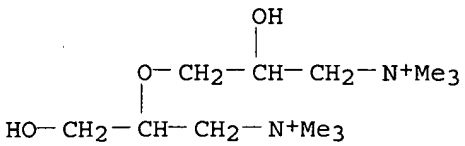
CRN 447397-80-0
CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x . 2 Cl

CM 4

CRN 447397-79-7
CMF C17 H26 O . C12 H30 N2 O3 . (C4 H8 O . C2 H4 O)x

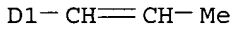
CM 5

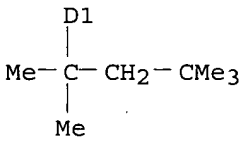
CRN 447397-78-6
CMF C12 H30 N2 O3



CM 6

CRN 446879-13-6
CMF C17 H26 O
CCI IDS



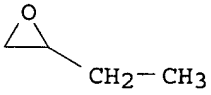


CM 7

CRN 27517-34-6
CMF (C4 H8 O . C2 H4 O)x
CCI PMS

CM 8

CRN 106-88-7
CMF C4 H8 O



CM 9

CRN 75-21-8
CMF C2 H4 O

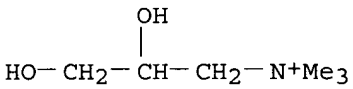
RN 447397-89-9 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447397-88-8
CMF (C7 H12 O2 . C2 H4 O)x . x C6 H16 N O2

CM 2

CRN 44814-66-6
CMF C6 H16 N O2

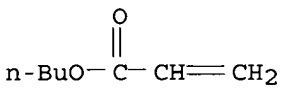


CM 3

CRN 131151-92-3
CMF (C7 H12 O2 . C2 H4 O)x
CCI PMS

CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 75-21-8
CMF C2 H4 O

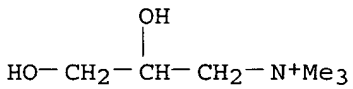
RN 447397-96-8 HCAPLUS
CN 2-Propenoic acid, ethyl ester, polymer with oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447397-95-7
CMF C6 H16 N O2 . x (C5 H8 O2 . C2 H4 O)x

CM 2

CRN 44814-66-6
CMF C6 H16 N O2

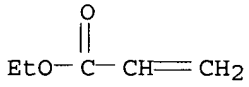


CM 3

CRN 138476-32-1
CMF (C5 H8 O2 . C2 H4 O)x
CCI PMS

CM 4

CRN 140-88-5
CMF C5 H8 O2



CM 5

CRN 75-21-8
CMF C2 H4 O

RN 447398-03-0 HCAPLUS

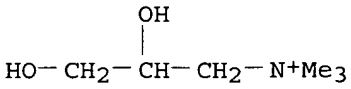
CN 2-Propenoic acid, butyl ester, polymer with ethenyl acetate and oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447398-02-9
CMF (C7 H12 O2 . C4 H6 O2 . C2 H4 O)x . x C6 H16 N O2

CM 2

CRN 44814-66-6
CMF C6 H16 N O2

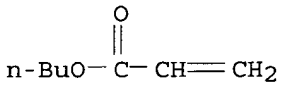


CM 3

CRN 447398-00-7
CMF (C7 H12 O2 . C4 H6 O2 . C2 H4 O)x
CCI PMS

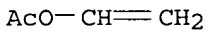
CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 108-05-4
CMF C4 H6 O2



CM 6

CRN 75-21-8
CMF C2 H4 O

L73 ANSWER 10 OF 49 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:626072 HCAPLUS <<LOGINID::20061221>>
DOCUMENT NUMBER: 137:170383
TITLE: Reactive emulsifiers for aqueous ethylenically unsaturated monomer dispersions forming water-resistant films
INVENTOR(S): Kurahashi, Hiroyuki; Haneda, Yasunobu
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002233744	A	20020820	JP 2001-32423	20010208
PRIORITY APPLN. INFO.:			JP 2001-32423	20010208

AB The emulsifiers, producing bubble-free monomer emulsions with stable polymerizability, are R1CH[CH2OCH2C(:CH2)R2]O(AO)nCH2CH(OH)CH2N+R3R4R5X- or R1CH[CH2OCH2C(:CH2)R2]O(AO)nY [R1 = C8-30 alkyl; R2 = H, Me; R3-5 = C1-8 hydrocarbyl; A = C2-4 alkylene; n = 0-200 integer; X- = anion; Y = H, (CH2CH(CH2R3R4R5N+X-)mCH(OH)CH2R3R4R5N+X- (R3-5, X- = the same definition as above); m = 0-5 integer)]. Thus, allyl alc. was reacted with AOE X 24 (C12/14-α-olefin), epichlorohydrin, and Me3N to give R1CH(CH2OCH2CH:CH2)OCH2CH(OH)CH2N+Me3Cl-, which was polymerized with Bu methacrylate to give an emulsion forming a film showing water contact angle 75° and excellent water resistance.

IT ***447447-36-1P***, Butyl methacrylate-oxirane graft copolymer, ether with epichlorohydrin trimethylamine quaternary salt ***447447-38-3P*** ***447447-41-8P***, Oxirane-Veova 10-vinyl acetate graft copolymer, ether with epichlorohydrin trimethylamine quaternary salt ***447447-44-1P*** ***447447-47-4P*** ***447447-50-9P*** ***447447-52-1P*** ***447447-54-3P*** ***447447-56-5P*** ***447447-57-6P*** ***447447-59-8P*** ***447447-61-2P*** ***447447-63-4P***, Butyl methacrylate-butylene oxide-ethylene oxide block graft copolymer ether with glycidyltrimethylammonium chloride ***447447-65-6P***, Butyl acrylate-butylene oxide-ethylene oxide-methyl methacrylate block graft copolymer ether with glycidyltrimethylammonium chloride ***447447-67-8P***, Butylene oxide-ethylene oxide-Veova 10-vinyl acetate block graft copolymer ether with glycidyltrimethylammonium chloride ***447447-69-0P*** ***447447-71-4P*** ***447447-73-6P***
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reactive emulsifiers for aqueous ethylenically unsatd. monomer dispersions forming films)

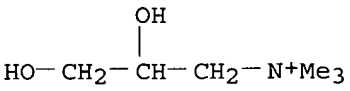
RN 447447-36-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-35-0
CMF (C8 H14 O2 . C2 H4 O)x . x C6 H16 N O2

CM 2

CRN 44814-66-6
CMF C6 H16 N O2

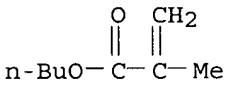


CM 3

CRN 152884-77-0
CMF (C8 H14 O2 . C2 H4 O)x
CCI PMS

CM 4

CRN 97-88-1
CMF C8 H14 O2



CM 5

CRN 75-21-8
CMF C2 H4 O

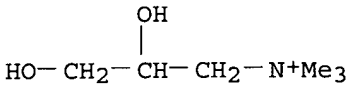
RN 447447-38-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-37-2
CMF (C8 H14 O2 . C7 H12 O2 . C2 H4 O)x . x C6 H16 N O2

CM 2

CRN 44814-66-6
CMF C6 H16 N O2

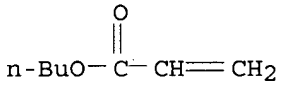


CM 3

CRN 350821-39-5
CMF (C8 H14 O2 . C7 H12 O2 . C2 H4 O)x
CCI PMS

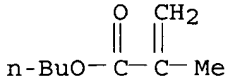
CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 97-88-1
CMF C8 H14 O2



CM 6

CRN 75-21-8
CMF C2 H4 O

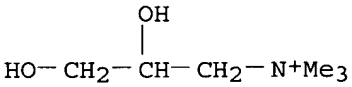
RN 447447-41-8 HCAPLUS
CN tert-Decanoic acid, ethenyl ester, polymer with ethenyl acetate and oxirane, 2-hydroxy-3-(trimethylammonio)propyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-40-7
CMF (C12 H22 O2 . C4 H6 O2 . C2 H4 O)x . x C6 H16 N O2

CM 2

CRN 44814-66-6
CMF C6 H16 N O2

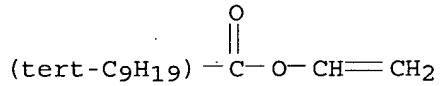


CM 3

CRN 447447-39-4
CMF (C12 H22 O2 . C4 H6 O2 . C2 H4 O)x
CCI PMS

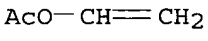
CM 4

CRN 26544-09-2
CMF C12 H22 O2
CCI IDS



CM 5

CRN 108-05-4
CMF C4 H6 O2



CM 6

CRN 75-21-8
CMF C2 H4 O

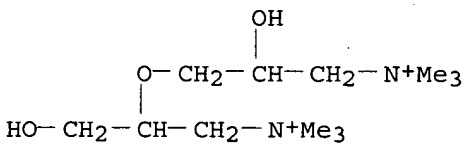
RN 447447-44-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethyloxirane and oxirane, 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether, block, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-43-0
CMF C12 H30 N2 O3 . x (C8 H14 O2 . C4 H8 O . C2 H4 O)x

CM 2

CRN 447397-78-6
CMF C12 H30 N2 O3

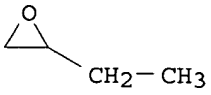


CM 3

CRN 447447-42-9
CMF (C8 H14 O2 . C4 H8 O . C2 H4 O)x
CCI PMS

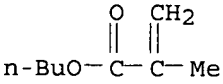
CM 4

CRN 106-88-7
CMF C4 H8 O



CM 5

CRN 97-88-1
CMF C8 H14 O2



CM 6

CRN 75-21-8
CMF C2 H4 O

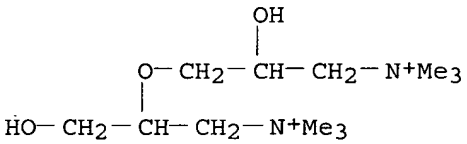
RN 447447-47-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, ethyloxirane and oxirane, 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether, block, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-46-3
CMF C12 H30 N2 O3 . x (C7 H12 O2 . C5 H8 O2 . C4 H8 O . C2 H4 O)x

CM 2

CRN 447397-78-6
CMF C12 H30 N2 O3

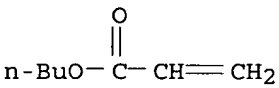


CM 3

CRN 447447-45-2
CMF (C7 H12 O2 . C5 H8 O2 . C4 H8 O . C2 H4 O)x
CCI PMS

CM 4

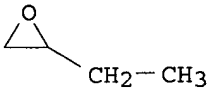
CRN 141-32-2
CMF C7 H12 O2



CM 5

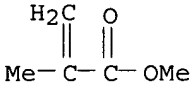
CRN 106-88-7

CMF C4 H8 O



CM 6

CRN 80-62-6
CMF C5 H8 O2



CM 7

CRN 75-21-8
CMF C2 H4 O

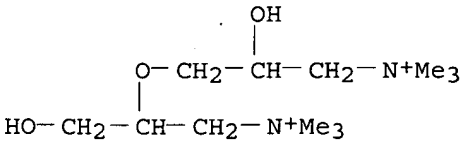
RN 447447-50-9 HCAPLUS
CN tert-Decanoic acid, ethenyl ester, polymer with ethenyl acetate, ethyloxirane and oxirane, 2-[2-hydroxy-3-(trimethylammonio)propoxy]-3-(trimethylammonio)propyl ether, block, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-49-6
CMF C12 H30 N2 O3 . x (C12 H22 O2 . C4 H8 O . C4 H6 O2 . C2 H4 O)x

CM 2

CRN 447397-78-6
CMF C12 H30 N2 O3

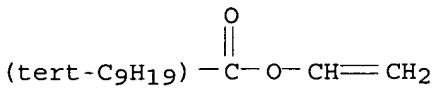


CM 3

CRN 447447-48-5
CMF (C12 H22 O2 . C4 H8 O . C4 H6 O2 . C2 H4 O)x
CCI PMS

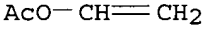
CM 4

CRN 26544-09-2
CMF C12 H22 O2
CCI IDS



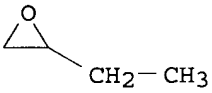
CM 5

CRN 108-05-4
CMF C4 H6 O2



CM 6

CRN 106-88-7
CMF C4 H8 O



CM 7

CRN 75-21-8
CMF C2 H4 O

RN 447447-52-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with oxirane, 3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl ether, graft, chloride

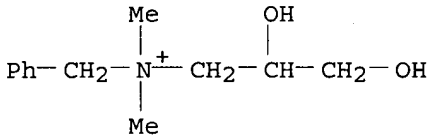
(9CI) (CA INDEX NAME)

CM 1

CRN 447447-51-0
CMF C12 H20 N O2 . x (C8 H14 O2 . C2 H4 O)x

CM 2

CRN 156669-86-2
CMF C12 H20 N O2

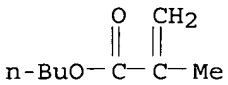


CM 3

CRN 152884-77-0
CMF (C8 H14 O2 . C2 H4 O)x
CCI PMS

CM 4

CRN 97-88-1
CMF C8 H14 O2



CM 5

CRN 75-21-8
CMF C2 H4 O

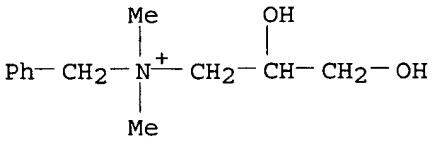
RN 447447-54-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate and oxirane, 3-[dimethyl(phenylmethyl)ammonio]-2-hydroxypropyl ether, graft, chloride (9CI) (CA INDEX NAME)

CM 1

CRN 447447-53-2
CMF C12 H20 N O2 . (C7 H12 O2 . C5 H8 O2 . C2 H4 O)x

CM 2

CRN 156669-86-2
CMF C12 H20 N O2

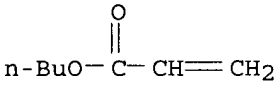


CM 3

CRN 252922-04-6
CMF (C7 H12 O2 . C5 H8 O2 . C2 H4 O)x
CCI PMS

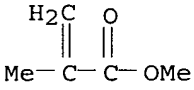
CM 4

CRN 141-32-2
CMF C7 H12 O2



CM 5

CRN 80-62-6
CMF C5 H8 O2



CM 6

CRN 75-21-8
CMF C2 H4 O